

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Roman MEYER *et al.*

Serial No.: 10/583,415

Filed: June 15, 2006

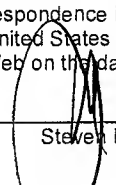
For: ENDOTOXIN DETECTION METHOD

Group Art Unit: 1645

Examiner: Not Yet Assigned

Atty. Dkt. No.: DEBE:067US

Confirmation No.: 6633

CERTIFICATE OF ELECTRONIC TRANSMISSION 37 C.F.R. § 1.8	
I hereby certify that this correspondence is being electronically filed with the United States Patent and Trademark Office via EFS-Web on the date below:	
January 27, 2010 Date	 Steven L. Highlander

**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED  
UNAVOIDABLY UNDER 37 C.F.R § 1.137(a) and RESPONSE TO NOTIFICATION OF  
ABANDONMENT MAILED DECEMBER 30, 2009**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

In response to the Notification of Abandonment, dated December 30, 2009, for Applicants' failure to respond to the Notification of Missing Requirements (Form PCT/DO/EO/905), mailed June 2, 2009 within the time period set therein, Applicants' undersigned representative requests that the Notification of Abandonment, dated December 30, 2009, be withdrawn for the reasons stated herein.

The United States Patent Office issued a Notification of Defective Response on June 2, 2009, indicating that the Sequence Listing submitted in response to the Notification of Missing Requirements on October 31, 2008 in the present application was defective as based on the marked-up "Raw Sequence listing" dated December 2, 2008 (attached hereto as Exhibit A). The marked-up "Raw Sequence Listing" dated December 2, 2008 lists "Total Warnings: 15" and "Total Errors: 0".

Prior to submitting the Response to Notification of Defective Response on June 24, 2009, Sandra Bass of Fulbright & Jaworski, LLP in Austin, Texas, contacted Mr. Mark Spencer of the Scientific and Technical Information Center at the United States Patent Office to inquire as to correcting the "defects" in the Sequence Listing submitted on October 31, 2008. Specifically, Ms. Bass inquired as to the difference between the "warnings" and "errors" identified on the marked-up "Raw Sequence Listing" issued in the present application. Mr. Spencer told Ms. Bass that the warnings are of no concern to the applicants; further, Mr. Spencer said the warnings are "flags" for the sequencer reviewers at the Patent Office and are not errors to be corrected upon.

Applicants' representative then submitted a response to the Notification of Defective Response on June 24, 2009, which included a second substitute Sequence Listing in .txt format (attached hereto as Exhibit B).

On July 14, 2009 the United States Patent Office issued a Notification of Defective Response (attached as Exhibit C), indicating that the content of the computer readable form previously submitted "does not comply with the requirements of 37 C.F.R 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing." The marked-up "Raw

Sequence Listing” dated July 2, 2009 includes “Total Warnings: 15” and “Total Errors: 8.” Further, the marked-up “Raw Sequence Listing” states that the 15 total warnings are “Ok and require no response.”

On September 28, 2009, applicants’ representative received a Notification of Abandonment, dated September 24, 2009, from the United States Patent Office for failure “to respond to the Notification of Missing Requirements (Form PCT/DO/EO/905), mailed July 14, 2009 within the period set therein” (attached as Exhibit D). Applicants’ representative submits that the Notification of Defective Response mailed July 14, 2009 was never received, as evidenced by the Petition Under 37 C.F.R. § 1.181(A) To Withdraw Holding of Abandonment Based on Failure to Respond to Notification of Defective Response submitted to the United States Patent Office on November 13, 2009 (Attached as Exhibit E).

In addition to the Petition Under 37 C.F.R. § 1.181(A) To Withdraw Holding of Abandonment Based on Failure to Respond to Notification of Defective Response submitted on November 12, 2009, applicants’ representative submitted a third substitute Sequence Listing in .txt format correcting the errors set forth in the marked-up “Raw Sequence Listing” dated July 2, 2009 (attached as Exhibit F).

A Decision Under 37 C.F.R § 1.181 in response to applicant’s “Petition Under 37 C.F.R. 1.181(A) to Withdraw Holding of Abandonment Based on Failure to Respond to Notification of Defective Response” was issued on December 8, 2009, dismissing the aforementioned Petition as “moot”. The Decision Under 37 C.F.R § 1.181 noted that the Notification of Defective Response, mailed July 2, 2009, was sent in error and that the present application was actually

abandoned "for failure to timely file a proper reply to the Notification of Defective Response mailed June 2, 2009.

Included in the "Discussion" of the Decision Under 37 C.F.R § 1.181, applicants were referred to "the attached sequence listing error report" (attached as Exhibit G) for clarification on the improper reply to the Notification of Defective Response mailed June 2, 2009.

The first line of the first page of the "sequence listing error report," dated November 25, 2009, attached to the Decision Under 37 C.F.R § 1.81 states "Sequence Listing was accepted" as reviewed by Dureshwar Anjum. Moreover, the "sequence listing error report" again notes "Total Warnings: 15" and "Total Errors: 0."

On or around January 13, 2010, Ms. Bass contacted Anne Corrigan of the Scientific and Technical Information Center at the United States Patent Office to discuss the sequence listings submitted in the present application. Ms. Corrigan explained that the "warnings" identified in the marked-up "Raw Sequence Listings" for the present application were in fact errors to be corrected. Ms. Bass explained to Ms. Corrigan that Mr. Spence had previously said "warnings" served as flags for the sequence reviewer at the United States Patent Office and are not to be corrected by the applicant(s). Ms. Corrigan continued her explanation that in this particular situation, the "warnings" should have been corrected by the applicant(s).

Applicants' representative respectfully requests the Notification of Abandonment, dated December 30, 2009, be withdrawn due to the fact that applicants' representatives were misinformed by personnel of the United States Patent Office regarding the need for warnings noted on the marked-up "Raw Sequence Listing" dated December 2, 2008 to be corrected.

It is believed that no fee is due with this communication, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed document, the Commissioner is authorized to deduct or credit said fees from or to Fulbright & Jaworski Deposit Account No. 50-1212/DEBE:067US.

Respectfully submitted,



Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 474-5201

Date: January 27, 2010

## **EXHIBIT A**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/583,415	Roman MEYER	DEBE:067US/ 10607189

32425  
FULBRIGHT & JAWORSKI L.L.P.  
600 CONGRESS AVE.  
SUITE 2400  
AUSTIN, TX 78701

INTERNATIONAL APPLICATION NO.	
PCT/DE2004/002778	
I.A. FILING DATE	PRIORITY DATE
12/20/2004	12/20/2003

**CONFIRMATION NO. 6633**  
**371 FORMALITIES LETTER**



Date Mailed: 06/02/2009

**NOTIFICATION OF DEFECTIVE RESPONSE**

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- Indication of Small Entity Status
- Priority Document
- Copy of the International Application filed on 06/15/2006
- English Translation of the IA filed on 06/15/2006
- Copy of the International Search Report filed on 06/15/2006
- Copy of IPE Report filed on 06/15/2006
- Preliminary Amendments filed on 06/15/2006
- Information Disclosure Statements filed on 02/13/2007
- Biochemical Sequence Diskette filed on 10/31/2008
- Oath or Declaration filed on 10/31/2008
- Biochemical Sequence Listing filed on 10/31/2008
- U.S. Basic National Fees filed on 06/15/2006
- Priority Documents filed on 06/15/2006
- Power of Attorney filed on 10/31/2008
- Non-English Language Application filed on 06/15/2006

Applicant's response filed 10/31/2008 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 09/02/2008 have not been completed.

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). Refer to attachment or PAIR document dated 12/2/2008.

**Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).**

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

**For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:**

- For Rules Interpretation, call (571) 272-0951
- For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patentin Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.

<https://portal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <http://www.uspto.gov/ebc>.

**If you are not using EFS-Web to submit your reply, you must include a copy of this notice.**

KAREN R MCLEAN

---

Telephone: (703) 756-1463



=====

Sequence Listing could not be accepted.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: markspencer

Timestamp: [year=2008; month=12; day=2; hr=15; min=14; sec=30; ms=124; ]

=====

\*\*\*\*\*

Reviewer Comments:

<210> 9

<211> 527

<212> PRT

<213> protein p12 of T2 phage

\* \* \* \* \*

<210> 10

<211> 527

<212> PRT

<213> protein p12 of T4 phage

\* \* \* \* \*

<210> 11

<211> 518

<212> PRT

<213> protein p12 of PP01 phage

\* \* \* \* \*

<210> 12

<211> 516

<212> PRT

<213> protein p12 of RB69 phage

\* \* \* \* \*

<210> 13

<211> 516

<212> PRT

<213> protein p12 of AR1 phage

\* \* \* \* \*

<210> 14

<211> 527

<212> PRT

<213> protein p12 of K3 phage

\* \* \* \* \*

<210> 15  
<211> 516  
<212> PRT  
<213> protein p12 of RB32-33 phage  
\* \* \* \* \*

For SEQ ID # 9 through 15, numeric identifier <213> can only be one of three choices, "Scientific name, i.e. Genus/species, Unknown or Artificial Sequence." Please move any information that is not part of the "Genus/species" into a feature.

\*\*\*\*\*

Application No: 10583415

Version No: 1.0

Input Set:

Output Set:

Started: 2008-10-31 10:24:00.418

Finished: 2008-10-31 10:24:01.953

Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 535 ms

Total Warnings: 15

Total Errors: 0

No. of SeqIDs Defined: 15

Actual SeqID Count: 15

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 402	Undefined organism found in <213> in SEQ ID (9)
W 402	Undefined organism found in <213> in SEQ ID (10)
W 402	Undefined organism found in <213> in SEQ ID (11)
W 402	Undefined organism found in <213> in SEQ ID (12)
W 402	Undefined organism found in <213> in SEQ ID (13)
W 402	Undefined organism found in <213> in SEQ ID (14)
W 402	Undefined organism found in <213> in SEQ ID (15)

# SEQUENCE LISTING

<110> MEYER, ROMAN  
 SCHUTZ, MICHAEL  
 GRALLERT, HOLGER  
 GRASSL, RENATE  
 MILLER, STEFAN

<120> ENDOTOXIN DETECTION METHOD

<130> DEBE:067US

<140> 10583415

<141> 2008-10-31

<150> PCT/DE2004/002778

<151> 2004-12-20

<150> DE 103 60 844.3

<151> 2003-12-20

<160> 15

<170> PatentIn version 3.3

<210> 1

<211> 78

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 1

gaagggaacta gtcatatggc tagctggagc caccgcgagt tcgaaaaagg cgccagtaat 60

aatacatatc aacacggt 78

<210> 2

<211> 54

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 2

acgcgcaaag cttgtcgagc gatccatca ttcttttacc ttaattatgt agtt 54

<210> 3

<211> 78

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 3

gaaggaacta gcatatggc ttgttgagc caccgcagt tcgaaaaagg cgccagtaat 60

aatacatatc aacacgtt 78

<210> 4

<211> 78

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 4

gaaggaacta gcatatggc tagctggagc caccgcagt tcgaaaaagg cgccagtaat 60

aatacatatc aacacgtt 78

<210> 5

<211> 19

<212> PRT

<213> artificial sequence

<220>

<223> strep tag

<400> 5

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn

1 5 10 15

Thr Tyr Gln

<210> 6

<211> 19

<212> PRT

<213> artificial sequence

<220>

<223> strep tag

<400> 6

Met Ala Cys Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn

1 5 10 15

Thr Tyr Gln

<210> 7  
<211> 19  
<212> PRT  
<213> artificial sequence

<220>  
<223> strep tag

<400> 7

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Cys Asn Asn  
1 5 10 15

Thr Tyr Gln

<210> 8  
<211> 539  
<212> PRT  
<213> artificial sequence

<220>  
<223> T4p12 with strep tag

<400> 8

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
1 5 10 15

Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val Lys Phe Asp Pro  
20 25 30

Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val Gln Ala Ala Ile  
35 40 45

Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro Asp Ala Ser Ser  
50 55 60

Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln Glu Val Ile Asp  
65 70 75 80

Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr Leu Ala Thr Arg  
85 90 95

Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly Leu Thr Arg Tyr  
100 105 110

Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn Glu Ser Ser Ile			
115	120	125	
Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val Phe Glu Thr Arg			
130	135	140	
Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile Ser Ser Leu Pro			
145	150	155	160
Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met Thr Pro Leu Lys			
165	170	175	
Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile Ala Pro Ser Lys			
180	185	190	
Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln Leu Ala Thr Val			
195	200	205	
Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr Ala Ile Ser Pro			
210	215	220	
Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr Lys Gly Val Ile			
225	230	235	240
Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn Ala Ser Val Ala			
245	250	255	
Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr Thr Ser Met Arg			
260	265	270	
Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln Ser Gly Gly Asp			
275	280	285	
Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile His Gln Arg Gly			
290	295	300	
Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn Thr Leu Thr Ile			
305	310	315	320
Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn Met Thr Gly Gly			
325	330	335	

Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu Ile Asp Arg Thr  
 340 345 350  
 Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp Ser Leu Pro Ser  
 355 360 365  
 Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser Ala Ser Asp Cys  
 370 375 380  
 Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly Gly Ser Ser Ser  
 385 390 395 400  
 Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ser Gly  
 405 410 415  
 Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly Asn Asp Gln Phe  
 420 425 430  
 Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly Tyr Val Gly Glu  
 435 440 445  
 Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala Gly Gly Phe Gly  
 450 455 460  
 Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg Arg Ser Asn Phe  
 465 470 475 480  
 Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg Ser Tyr Phe Thr  
 485 490 495  
 Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg Asn Ser Arg Tyr  
 500 505 510  
 Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr Arg Pro Trp Asn  
 515 520 525  
 Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
 530 535

<210> 9

<211> 527

<212> PRT

<213> protein p12 of T2 phage



Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
20 25 30

Gln Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
35 40 45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln  
50 55 60

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val  
115 120 125

Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile  
165 170 175

Ala Pro Ser Lys Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln  
180 185 190

Leu Ala Thr Val Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr  
210 215 220

Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn			
225	230	235	240
Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr			
	245	250	255
Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln			
	260	265	270
Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile			
	275	280	285
His Gln Arg Gly Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn			
	290	295	300
Thr Leu Thr Ile Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn			
305	310	315	320
Met Thr Gly Gly Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu			
	325	330	335
Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp			
	340	345	350
Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser			
	355	360	365
Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly			
370	375	380	
Gly Thr Ser Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val			
385	390	395	400
Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly			
	405	410	415
Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly			
	420	425	430
Tyr Val Gly Glu Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala			
435	440	445	

Gly Gly Phe Gly Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg  
450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg  
485 490 495

Asn Ser Arg Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
515 520 525

<210> 10

<211> 527

<212> PRT

<213> protein p12 of T4 phage

<400> 10

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
20 25 30

His Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
35 40 45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Ile Pro Thr Glu Gln  
50 55 60

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Thr Val Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Ala  
115 120 125

Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Ile Lys Leu Ile Ala Gln Ile  
165 170 175

Ala Pro Ser Glu Thr Thr Ala Thr Glu Ser Asp Gln Gly Val Val Gln  
180 185 190

Leu Ala Thr Val Ala Gln Val Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Ser Ser Thr Glu Glu Tyr  
210 215 220

Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
225 230 235 240

Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
245 250 255

Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln  
260 265 270

Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

Gln Gln Arg Gly Gly Gln Ile Ile Tyr Gly Thr Leu Arg Ile Glu Asp  
290 295 300

Thr Phe Thr Ile Ala Asn Gly Gly Ala Asn Ile Thr Gly Thr Val Arg  
305 310 315 320

Met Thr Gly Gly Tyr Ile Gln Gly Asn Arg Ile Val Thr Gln Asn Glu  
325 330 335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
 355 360 365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
 370 375 380

Gly Asn Pro Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
 385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
 405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
 420 425 430

Tyr Val Gly Glu Val Gln Ile Gln Gln Met Ser Tyr His Lys His Ala  
 435 440 445

Gly Gly Phe Gly Glu His Asp Asp Leu Gly Ala Phe Gly Asn Thr Arg  
 450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
 465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Glu Ser Gln Arg  
 485 490 495

Asn Ser Lys Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
 500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
 515 520 525

<210> 11  
 <211> 518  
 <212> PRT  
 <213> protein p12 of PP01 phage

<400> 11

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Lys Tyr Val  
 1 5 10 15

Lys Phe Asp Pro Val Gly Ser Asn Phe Pro Asp Thr Val Thr Thr Val

20

25

30

Gln Ser Ala Leu Ser Lys Ile Ser Asn Ile Gly Val Asn Gly Ile Pro  
 35 40 45

Asp Ala Ser Met Glu Val Lys Gly Ile Ala Met Ile Ala Ser Glu Gln  
 50 55 60

Glu Val Leu Asp Gly Thr Asn Asn Ser Lys Ile Val Thr Pro Ala Thr  
 65 70 75 80

Leu Ala Thr Arg Leu Leu Tyr Pro Asn Ala Thr Glu Thr Lys Tyr Gly  
 85 90 95

Leu Thr Arg Tyr Ser Thr Asn Glu Glu Thr Leu Glu Gly Ser Asp Asn  
 100 105 110

Asn Ser Ser Ile Thr Pro Gln Lys Leu Lys Tyr His Thr Asp Asp Val  
 115 120 125

Phe Gln Asn Arg Tyr Ser Ser Glu Ser Ser Asn Gly Val Ile Lys Ile  
 130 135 140

Ser Ser Thr Pro Ala Ala Leu Ala Gly Val Asp Asp Thr Thr Ala Met  
 145 150 155 160

Thr Pro Leu Lys Thr Gln Lys Leu Ala Ile Lys Leu Ile Ser Gln Ile  
 165 170 175

Ala Pro Ser Glu Asp Thr Ala Ser Glu Ser Val Arg Gly Val Val Gln  
 180 185 190

Leu Ser Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
 195

## **EXHIBIT B**

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Roman MEYER *et al.*

Serial No.: 10/583,415

Filed: June 15, 2006

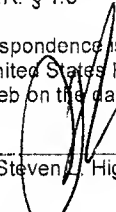
For: ENDOTOXIN DETECTION METHOD

Group Art Unit: 1645

Examiner: Not Yet Assigned

Atty. Dkt. No.: DEBE:067US

Confirmation No.: 6633

CERTIFICATE OF ELECTRONIC TRANSMISSION 37 C.F.R. § 1.8	
I hereby certify that this correspondence is being electronically filed with the United States Patent and Trademark Office via EFS-Web on the date below:	
June 24, 2009 Date	 Steven J. Highlander

**RESPONSE TO NOTIFICATION OF DEFECTIVE RESPONSE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

In response to the Notification of Defective Response, dated June 2, 2009, there are enclosed herewith:

- (a) Substitute Sequence Listing in .txt format; and
- (b) A copy of Notification of Defective Response.

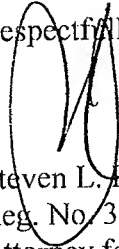
It is believed that no fee is due with this communication, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed document, the



Commissioner is authorized to deduct or credit said fees from or to Fulbright & Jaworski Deposit

Account No. 50-1212/DEBE:067US.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S. Highlander', enclosed within a large, hand-drawn oval.

Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 474-5201

Date: June 24, 2009



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

U.S. APPLICATION NUMBER NO.

10/583,415

FIRST NAMED APPLICANT

Roman MEYER

ATTY. DOCKET NO.

DEBE:067US/ 10607189

32425

FULBRIGHT & JAWORSKI L.L.P.

600 CONGRESS AVE.

SUITE 2400

AUSTIN, TX 78701

INTERNATIONAL APPLICATION NO.

PCT/DE2004/002778

I.A. FILING DATE

12/20/2004

PRIORITY DATE

12/20/2003

CONFIRMATION NO. 6633

371 FORMALITIES LETTER



0000000036065494

Date Mailed: 06/02/2009

## NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- Indication of Small Entity Status
- Priority Document
- Copy of the International Application filed on 06/15/2006
- English Translation of the IA filed on 06/15/2006
- Copy of the International Search Report filed on 06/15/2006
- Copy of IPE Report filed on 06/15/2006
- Preliminary Amendments filed on 06/15/2006
- Information Disclosure Statements filed on 02/13/2007
- Biochemical Sequence Diskette filed on 10/31/2008
- Oath or Declaration filed on 10/31/2008
- Biochemical Sequence Listing filed on 10/31/2008
- U.S. Basic National Fees filed on 06/15/2006
- Priority Documents filed on 06/15/2006
- Power of Attorney filed on 10/31/2008
- Non-English Language Application filed on 06/15/2006

Applicant's response filed 10/31/2008 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 09/02/2008 have not been completed.

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). Refer to attachment or PAIR document dated 12/2/2008.

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

**For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:**

- For Rules Interpretation, call (571) 272-0951
- For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patentin Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.

<https://portal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at <http://www.uspto.gov/ebc>.

**If you are not using EFS-Web to submit your reply, you must include a copy of this notice.**

KAREN R MCLEAN

---

Telephone: (703) 756-1463

DEBE067US.txt  
SEQUENCE LISTING

<110> MEYER, ROMAN  
SCHUTZ, MICHAEL  
GRALLERT, HOLGER  
GRASSL, RENATE  
MILLER, STEFAN

<120> ENDOTOXIN DETECTION METHOD

<130> DEBE:067US

<140> 10/583,415  
<141> 2006-06-15

<150> PCT/DE2004/002778  
<151> 2004-12-20

<150> DE 103 60 844.3  
<151> 2003-12-20

<160> 15

<170> PatentIn version 3.3

<210> 1  
<211> 78  
<212> DNA  
<213> artificial sequence

<220>  
<223> synthetic primer

<400> 1  
gaaggaacta gtcatatggc tagctggagc caccgcagc tcgaaaaagg cgccagtaat 60  
aatacatatc aacacggt 78

<210> 2  
<211> 54  
<212> DNA  
<213> artificial sequence

<220>  
<223> synthetic primer

<400> 2  
acgcgcaaag cttgtcgacg gatacctatca ttcttttacc ttaattatgt agtt 54

<210> 3  
<211> 78  
<212> DNA  
<213> artificial sequence

<220>  
<223> synthetic primer

<400> 3  
gaaggaacta gtcatatggc ttgttggagc caccgcagc tcgaaaaagg cgccagtaat 60  
aatacatatc aacacggt 78

DEBE067US.txt

<210> 4  
 <211> 78  
 <212> DNA  
 <213> artificial sequence

<220>  
 <223> synthetic primer

<400> 4  
 gaaggaacta gtcatatggc tagctggagc caccgcagc tcgaaaaagg cgcctgtaat 60  
 aatacatatc aacacgtt 78

<210> 5  
 <211> 19  
 <212> PRT  
 <213> artificial sequence

<220>  
 <223> strep tag

<400> 5

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
 1 5 10 15

Thr Tyr Gln

<210> 6  
 <211> 19  
 <212> PRT  
 <213> artificial sequence

<220>  
 <223> strep tag

<400> 6

Met Ala Cys Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
 1 5 10 15

Thr Tyr Gln

<210> 7  
 <211> 19  
 <212> PRT  
 <213> artificial sequence

<220>  
 <223> strep tag

<400> 7

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Cys Asn Asn  
 Page 2

1

5

Thr Tyr Gln

<210> 8  
<211> 539  
<212> PRT  
<213> artificial sequence

<220>  
<223> T4p12 with strep tag

<400> 8

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
1 5 10 15

Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val Lys Phe Asp Pro  
20 25 30

Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val Gln Ala Ala Ile  
35 40 45

Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro Asp Ala Ser Ser  
50 55 60

Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln Glu Val Ile Asp  
65 70 75 80

Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr Leu Ala Thr Arg  
85 90 95

Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly Leu Thr Arg Tyr  
100 105 110

Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn Glu Ser Ser Ile  
115 120 125

Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val Phe Glu Thr Arg  
130 135 140

Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile Ser Ser Leu Pro  
145 150 155 160

Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met Thr Pro Leu Lys  
165 170 175

Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile Ala Pro Ser Lys  
180 185 190

DEBE067US.txt

Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln Leu Ala Thr Val  
195 200 205

Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr Ala Ile Ser Pro  
210 215 220

Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr Lys Gly Val Ile  
225 230 235 240

Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn Ala Ser Val Ala  
245 250 255

Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr Thr Ser Met Arg  
260 265 270

Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln Ser Gly Gly Asp  
275 280 285

Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile His Gln Arg Gly  
290 295 300

Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn Thr Leu Thr Ile  
305 310 315 320

Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn Met Thr Gly Gly  
325 330 335

Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu Ile Asp Arg Thr  
340 345 350

Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp Ser Leu Pro Ser  
355 360 365

Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser Ala Ser Asp Cys  
370 375 380

Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly Gly Ser Ser Ser  
385 390 395 400

Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ser Gly  
405 410 415

Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly Asn Asp Gln Phe  
420 425 430

Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly Tyr Val Gly Glu  
Page 4

435

440

445

Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala Gly Gly Phe Gly  
450 455 460

Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg Arg Ser Asn Phe  
465 470 475 480

Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg Ser Tyr Phe Thr  
485 490 495

Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg Asn Ser Arg Tyr  
500 505 510

Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr Arg Pro Trp Asn  
515 520 525

Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
530 535

<210> 9  
<211> 527  
<213> unknown

<220>  
<223> protein p12 of T2 phage

<400> 9

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
20 25 30

Gln Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
35 40 45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln  
50 55 60

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110



DEBE067US.txt

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val  
 115 120 125  
 Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
 130 135 140  
 Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
 145 150 155 160  
 Thr Pro Leu Lys Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile  
 165 170 175  
 Ala Pro Ser Lys Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln  
 180 185 190  
 Leu Ala Thr Val Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
 195 200 205  
 Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr  
 210 215 220  
 Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
 225 230 235 240  
 Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
 245 250 255  
 Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln  
 260 265 270  
 Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
 275 280 285  
 His Gln Arg Gly Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn  
 290 295 300  
 Thr Leu Thr Ile Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn  
 305 310 315 320  
 Met Thr Gly Gly Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu  
 325 330 335  
 Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
 340 345 350  
 Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
 355 360 365

DEBE067US.txt

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
370 375 380

Gly Thr Ser Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
420 425 430

Tyr Val Gly Glu Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala  
435 440 445

Gly Gly Phe Gly Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg  
450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg  
485 490 495

Asn Ser Arg Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
515 520 525

<210> 10

<211> 527

<213> unknown

<220>

<223> protein p12 of T4 phage

<400> 10

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
20 25 30

His Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
35 40 45

DEBE067US.txt

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Ile Pro Thr Glu Gln  
 50 55 60  
 Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
 65 70 75 80  
 Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Thr Val Tyr Gly  
 85 90 95  
 Leu Thr Arg Tyr Ser Thr Asn Asp Glu Ala Ile Ala Gly Val Asn Asn  
 100 105 110  
 Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Ala  
 115 120 125  
 Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
 130 135 140  
 Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
 145 150 155 160  
 Thr Pro Leu Lys Thr Gln Gln Leu Ala Ile Lys Leu Ile Ala Gln Ile  
 165 170 175  
 Ala Pro Ser Glu Thr Thr Ala Thr Glu Ser Asp Gln Gly Val Val Gln  
 180 185 190  
 Leu Ala Thr Val Ala Gln Val Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
 195 200 205  
 Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Ser Ser Thr Glu Glu Tyr  
 210 215 220  
 Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
 225 230 235 240  
 Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
 245 250 255  
 Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln  
 260 265 270  
 Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
 275 280 285  
 Gln Gln Arg Gly Gly Gln Ile Ile Tyr Gly Thr Leu Arg Ile Glu Asp  
 290 295 300

DEBE067US.txt

Thr Phe Thr Ile Ala Asn Gly Gly Ala Asn Ile Thr Gly Thr Val Arg  
305 310 315 320

Met Thr Gly Gly Tyr Ile Gln Gly Asn Arg Ile Val Thr Gln Asn Glu  
325 330 335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
355 360 365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
370 375 380

Gly Asn Pro Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
420 425 430

Tyr Val Gly Glu Val Gln Ile Gln Gln Met Ser Tyr His Lys His Ala  
435 440 445

Gly Gly Phe Gly Glu His Asp Asp Leu Gly Ala Phe Gly Asn Thr Arg  
450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Glu Ser Gln Arg  
485 490 495

Asn Ser Lys Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
515 520 525

<210> 11

<211> 518

<213> unknown

<220>

<223> protein p12 of PP01 phage

&lt;400&gt; 11

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Lys Tyr Val  
 1 5 10 15

Lys Phe Asp Pro Val Gly Ser Asn Phe Pro Asp Thr Val Thr Thr Val  
 20 25 30

Gln Ser Ala Leu Ser Lys Ile Ser Asn Ile Gly Val Asn Gly Ile Pro  
 35 40 45

Asp Ala Ser Met Glu Val Lys Gly Ile Ala Met Ile Ala Ser Glu Gln  
 50 55 60

Glu Val Leu Asp Gly Thr Asn Asn Ser Lys Ile Val Thr Pro Ala Thr  
 65 70 75 80

Leu Ala Thr Arg Leu Leu Tyr Pro Asn Ala Thr Glu Thr Lys Tyr Gly  
 85 90 95

Leu Thr Arg Tyr Ser Thr Asn Glu Glu Thr Leu Glu Gly Ser Asp Asn  
 100 105 110

Asn Ser Ser Ile Thr Pro Gln Lys Leu Lys Tyr His Thr Asp Asp Val  
 115 120 125

Phe Gln Asn Arg Tyr Ser Ser Glu Ser Ser Asn Gly Val Ile Lys Ile  
 130 135 140

Ser Ser Thr Pro Ala Ala Leu Ala Gly Val Asp Asp Thr Thr Ala Met  
 145 150 155 160

Thr Pro Leu Lys Thr Gln Lys Leu Ala Ile Lys Leu Ile Ser Gln Ile  
 165 170 175

Ala Pro Ser Glu Asp Thr Ala Ser Glu Ser Val Arg Gly Val Val Gln  
 180 185 190

Leu Ser Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
 195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Val Ala Thr Gln Glu Tyr  
 210 215 220

Lys Gly Val Ile Arg Leu Gly Thr Gln Ser Glu Ile Asn Ser Asn Leu  
 225 230 235 240

Gly Asp Val Ala Val Thr Gly Glu Thr Leu Asn Gly Arg Gly Ala Thr  
 245 250 255  
 Gly Ser Met Arg Gly Val Val Lys Leu Thr Thr Gln Ala Gly Ile Ala  
 260 265 270  
 Pro Glu Gly Asp Ser Ser Gly Ala Leu Ala Trp Asn Ala Asp Val Ile  
 275 280 285  
 Asn Thr Arg Gly Gly Gln Thr Ile Asn Gly Ser Leu Asn Leu Asp His  
 290 295 300  
 Leu Thr Ala Asn Gly Ile Trp Ser Arg Gly Gly Met Trp Lys Asn Gly  
 305 310 315 320  
 Asp Gln Pro Val Ala Thr Glu Arg Tyr Ala Ser Glu Arg Val Pro Val  
 325 330 335  
 Gly Thr Ile Met Met Phe Ala Gly Asp Ser Ala Pro Pro Gly Trp Ile  
 340 345 350  
 Met Cys His Gly Gly Thr Val Ser Gly Asp Gln Tyr Pro Asp Tyr Arg  
 355 360 365  
 Asn Thr Val Gly Thr Arg Phe Gly Gly Asp Trp Asn Asn Pro Gly Ile  
 370 375 380  
 Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ala Gly Thr Gly Gly His  
 385 390 395 400  
 Ile Leu Asn Gln Arg Gly Gln Asp Gly Tyr Gly Lys Asp Arg Leu Gly  
 405 410 415  
 Val Gly Cys Asp Gly Met His Val Gly Gly Val Gln Ala Gln Gln Ile  
 420 425 430  
 Ser Tyr His Lys His Ala Gly Ala Trp Gly Glu Asn Gly Asn Asn Arg  
 435 440 445  
 Gly Tyr Ala Pro Phe Gly Ala Ser Asn Gly Ser Gly Tyr Leu Gly Asn  
 450 455 460  
 Gly Arg Ser Ala Asp Trp Asp Asn His Leu Phe Phe Thr Asn Asp Gly  
 465 470 475 480  
 Phe Glu Met Gly Gly Pro Arg Asp Ser Phe Gly Thr Leu Asn Arg Glu  
 485 490 495

DEBE067US.txt

Gly Leu Ile Gly Tyr Glu Thr Arg Pro Trp Asn Ile Ser Leu Asn Tyr  
500 505 510

Ile Ile Lys Ile His Tyr  
515

<210> 12

<211> 516

<213> unknown

<220>

<223> protein p12 of RB69 phage

<400> 12

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Val Tyr Val  
1 5 10 15

Glu Phe Asp Pro Thr Gly Ser Asn Phe Asp Ser Ser Ile Thr Asn Val  
20 25 30

Gln Ala Ala Leu Ala Ser Ile Ser Ala Tyr Gly Val Lys Gly Val Pro  
35 40 45

Asp Ala Ser Glu Ala Glu Lys Gly Val Ile Gln Leu Ala Thr Glu Gln  
50 55 60

Glu Val Leu Asp Gly Phe Asn Ser Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Asn Ala Arg Leu Gln Tyr Pro Asn Ala Ser Glu Thr Gln Tyr Gly  
85 90 95

Val Thr Lys Tyr Ala Thr Gln Glu Glu Ala Ile Ala Gly Thr Leu Asp  
100 105 110

Thr Val Ser Ile Thr Pro Leu Lys Leu Asn Gln Thr Ile Asp Asn Thr  
115 120 125

Phe Ser Thr Arg Tyr Ser Thr Glu Thr Thr Asn Gly Val Ile Lys Ile  
130 135 140

Ala Thr Gln Thr Ala Ala Leu Ala Gly Ser Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Ile Lys Leu Ile Ser Gln Ile  
165 170 175

Ala Pro Asn Asn Asp Pro Ala Ser Glu Ser Ile Thr Gly Val Val Arg  
Page 12

180

185

190

Leu Ala Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
 195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Val Ala Thr Gln Glu Tyr  
 210 215 220

Lys Gly Val Ile Arg Leu Gly Thr Gln Ala Glu Ile Asn Ser Asn Leu  
 225 230 235 240

Gly Asp Val Ala Val Thr Gly Glu Thr Leu Asn Gly Arg Gly Ala Thr  
 245 250 255

Gly Ser Met Arg Gly Val Val Lys Leu Thr Thr Gln Ala Gly Val Ala  
 260 265 270

Pro Glu Gly Asp Ser Ser Gly Ala Leu Ala Trp Asn Ala Asp Val Ile  
 275 280 285

Asn Thr Arg Gly Gly Gln Thr Ile Asn Gly Ser Leu Asn Leu Asp His  
 290 295 300

Leu Thr Ala Asn Gly Ile Trp Ser Arg Gly Gly Met Trp Lys Asn Gly  
 305 310 315 320

Asp Gln Pro Val Ala Thr Glu Arg Tyr Ala Ser Glu Arg Val Pro Val  
 325 330 335

Gly Thr Ile Gln Met Phe Ala Gly Asp Ser Ala Pro Pro Gly Trp Val  
 340 345 350

Leu Cys His Gly Gly Thr Ile Ser Gly Asp Gln Phe Pro Asp Tyr Arg  
 355 360 365

Asn Val Val Gly Thr Arg Phe Gly Gly Asp Trp Asn Asn Pro Gly Ile  
 370 375 380

Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ala Gly Thr Gly Ser His  
 385 390 395 400

Ile Leu Asn Asn Arg Gly Gln Asp Gly Tyr Gly Lys Asp Arg Leu Gly  
 405 410 415

Val Gly Cys Asp Gly Met His Val Gly Gly Val Gln Ala Gln Gln Met  
 420 425 430



DEBE067US.txt

Ser Tyr His Lys His Ala Gly Gly Trp Gly Glu Phe Gln Arg His Glu  
435 440 445

Ala Pro Phe Gly Ala Ser Val Tyr Gln Gly Tyr Leu Gly Thr Arg Lys  
450 455 460

Tyr Ser Asp Trp Asp Asn Ala Ser Tyr Phe Thr Asn Asp Gly Phe Glu  
465 470 475 480

Leu Gly Gly His Arg Asp Ala Thr Gly Thr Leu Asn Arg Glu Gly Leu  
485 490 495

Ile Gly Tyr Glu Thr Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile  
500 505 510

Lys Val His Tyr  
515

<210> 13

<211> 516

<213> unknown

<220>

<223> protein p12 of AR1 phage

<400> 13

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Lys Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Gly Ser Asn Phe Pro Asp Thr Val Thr Thr Val  
20 25 30

Gln Ser Ala Leu Ser Lys Ile Ser Asn Ile Gly Val Asn Gly Ile Pro  
35 40 45

Asp Ala Thr Met Glu Val Lys Gly Ile Ala Met Ile Ala Ser Glu Gln  
50 55 60

Glu Val Leu Asp Gly Thr Asn Asn Ser Lys Ile Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Leu Tyr Pro Asn Ala Thr Glu Thr Lys Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Glu Glu Thr Leu Glu Gly Ser Asp Asn  
100 105 110

Asn Ser Ser Ile Thr Pro Gln Lys Leu Lys Tyr His Thr Asp Asp Val  
115 120 125

DEBE067US.txt

Phe Gln Asn Arg Tyr Ser Ser Glu Ser Ser Asn Gly Val Ile Lys Ile  
 130 135 140  
 Ser Ser Thr Pro Ala Ala Leu Ala Gly Val Asp Asp Thr Thr Ala Met  
 145 150 155 160  
 Thr Pro Leu Lys Thr Gln Lys Leu Ala Ile Lys Leu Ile Ser Gln Ile  
 165 170 175  
 Ala Pro Ser Glu Asp Thr Ala Ser Glu Ser Val Arg Gly Val Val Gln  
 180 185 190  
 Leu Ser Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
 195 200 205  
 Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Val Ala Thr Gln Glu Tyr  
 210 215 220  
 Lys Gly Val Ile Arg Leu Gly Thr Gln Ser Glu Ile Asn Ser Asn Leu  
 225 230 235 240  
 Gly Asp Val Ala Val Thr Gly Gly Thr Leu Asn Gly Arg Gly Ala Thr  
 245 250 255  
 Gly Ser Met Arg Gly Val Val Lys Leu Thr Thr Gln Ala Gly Ile Ala  
 260 265 270  
 Pro Glu Gly Asp Ser Ser Gly Ala Leu Ala Trp Asn Ala Asp Val Ile  
 275 280 285  
 Asn Thr Arg Gly Gly Gln Thr Ile Asn Gly Ser Leu Asn Leu Asp His  
 290 295 300  
 Leu Thr Ala Asn Gly Ile Trp Ser Arg Gly Gly Met Trp Lys Asn Gly  
 305 310 315 320  
 Asp Gln Pro Val Ala Thr Glu Arg Tyr Ala Ser Glu Arg Val Pro Val  
 325 330 335  
 Gly Thr Ile Met Met Phe Ala Gly Asp Ser Ala Pro Pro Gly Trp Ile  
 340 345 350  
 Met Cys His Gly Gly Thr Val Ser Gly Asp Gln Tyr Pro Asp Tyr Arg  
 355 360 365  
 Asn Thr Val Gly Thr Arg Phe Gly Gly Asp Trp Asn Asn Pro Gly Ile  
 Page 15

370

375

Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ala Gly Thr Gly Gly His  
385 390 395 400

Ile Leu Asn Gln Arg Gly Gln Asp Gly Tyr Gly Lys Asp Arg Leu Gly  
405 410 415

Val Gly Cys Asp Gly Met His Val Gly Gly Val Gln Ala Gln Gln Met  
420 425 430

Ser Tyr His Lys His Ala Gly Gly Trp Gly Glu Tyr Asn Arg Ser Glu  
435 440 445

Gly Pro Phe Gly Ala Ser Val Tyr Gln Gly Tyr Leu Gly Thr Arg Lys  
450 455 460

Tyr Ser Asp Trp Asp Asn Ala Ser Tyr Phe Thr Asn Asp Gly Phe Glu  
465 470 475 480

Leu Gly Gly Pro Arg Asp Ala Leu Gly Thr Leu Asn Arg Glu Gly Leu  
485 490 495

Ile Gly Tyr Glu Thr Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile  
500 505 510

Lys Ile His Tyr  
515

<210> 14  
<211> 527  
<213> unknown

<220>  
<223> protein p12 of K3 phage

<400> 14

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
20 25 30

Gln Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
35 40 45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln  
50 55 60

DEBE067US.txt

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Thr Val Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Ala  
115 120 125

Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Ile Lys Leu Ile Ala Gln Ile  
165 170 175

Ala Pro Ser Glu Thr Thr Ala Thr Glu Ser Asp Gln Gly Val Val Gln  
180 185 190

Leu Ala Thr Val Ala Gln Val Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Ser Ala Thr Glu Glu Tyr  
210 215 220

Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
225 230 235 240

Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
245 250 255

Thr Ser Met Arg Gly Val Val Arg Leu Thr Thr Thr Ala Gly Ser Gln  
260 265 270

Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

His Gln Arg Gly Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn  
290 295 300

Thr Leu Thr Ile Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn  
305 310 315 320

DEBE067US.txt

Met Thr Gly Gly Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu  
325 330 335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
355 360 365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
370 375 380

Gly Ser Ser Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
420 425 430

Tyr Val Gly Glu Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala  
435 440 445

Gly Gly Phe Gly Glu Trp Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg  
450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg  
485 490 495

Asn Ser Arg Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
515 520 525

<210> 15  
<211> 516  
<213> unknown

<220>  
<223> protein p12 of RB32-33 phage

<400> 15

DEBE067US.txt

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Lys Tyr Val  
1 5 10 15

Lys Phe Asp Pro Val Gly Ser Asn Phe Pro Asp Thr Val Thr Thr Val  
20 25 30

Gln Ser Ala Leu Ser Lys Ile Ser Asn Ile Gly Val Asn Gly Ile Pro  
35 40 45

Asp Ala Thr Met Glu Val Lys Gly Ile Ala Met Ile Ala Ser Glu Gln  
50 55 60

Glu Val Leu Asp Gly Thr Asn Asn Ser Lys Ile Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Leu Tyr Pro Asn Ala Thr Glu Thr Lys Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Glu Glu Thr Leu Glu Gly Ser Asp Asn  
100 105 110

Asn Ser Ser Ile Thr Pro Gln Lys Leu Lys Tyr His Thr Asp Asp Val  
115 120 125

Phe Gln Asn Arg Tyr Ser Ser Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Thr Pro Ala Ala Leu Ala Gly Val Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Lys Leu Ala Ile Lys Leu Ile Ser Gln Ile  
165 170 175

Ala Pro Ser Glu Asp Thr Ala Ser Glu Ser Val Arg Gly Val Val Gln  
180 185 190

Leu Ser Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Val Ala Thr Gln Glu Tyr  
210 215 220

Lys Gly Val Ile Arg Leu Gly Thr Gln Ser Glu Ile Asn Ser Asn Leu  
225 230 235 240

Gly Asp Val Ala Val Thr Gly Glu Thr Leu Asn Gly Arg Gly Ala Thr  
245 250 255

DEBE067US.txt

Ser Ser Met Arg Gly Val Val Lys Leu Thr Thr Gln Ala Gly Ile Ala  
260 265 270

Pro Glu Gly Asp Gly Ser Gly Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

Asn Thr Arg Gly Gly Gln Thr Ile Asn Gly Ser Leu Asn Leu Asp His  
290 295 300

Leu Thr Ala Asn Gly Ile Trp Ser Arg Gly Gly Met Trp Lys Asn Gly  
305 310 315 320

Asp Gln Pro Val Ala Thr Glu Arg Tyr Ala Ser Glu Arg Val Pro Val  
325 330 335

Gly Thr Ile Met Met Phe Ala Gly Asp Ser Ala Pro Pro Gly Trp Ile  
340 345 350

Met Cys His Gly Gly Thr Val Ser Gly Asp Gln Tyr Pro Asp Tyr Arg  
355 360 365

Asn Thr Val Gly Ala Arg Phe Gly Gly Asp Trp Asn Asn Pro Gly Ile  
370 375 380

Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ala Gly Thr Gly Gly His  
385 390 395 400

Ile Leu Asn Gln Arg Gly Gln Asp Gly Tyr Gly Lys Asp Arg Leu Gly  
405 410 415

Val Gly Cys Asp Gly Met His Val Gly Gly Val Gln Ala Gln Gln Met  
420 425 430

Ser Tyr His Lys His Ala Gly Gly Trp Gly Glu Tyr Gln Arg His Glu  
435 440 445

Ala Pro Phe Gly Ala Ser Val Tyr Gln Gly Tyr Leu Gly Thr Arg Lys  
450 455 460

Tyr Ser Asp Trp Asp Asn Ala Ser Tyr Phe Thr Asn Asp Gly Phe Glu  
465 470 475 480

Leu Gly Gly Pro Arg Asp Ala Leu Gly Thr Leu Asn Arg Glu Gly Leu  
485 490 495

Ile Gly Tyr Glu Thr Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile  
500 505 510

DEBE067US.txt

Lys Ile His Tyr  
515



## Electronic Acknowledgement Receipt

EFS ID:	5578047
Application Number:	10583415
International Application Number:	
Confirmation Number:	6633
Title of Invention:	Endotoxin detection method
First Named Inventor/Applicant Name:	Roman MEYER
Customer Number:	32425
Filer:	Steven Lee Highlander/Richard Ortiz
Filer Authorized By:	Steven Lee Highlander
Attorney Docket Number:	DEBE:067US/ 10607189
Receipt Date:	24-JUN-2009
Filing Date:	
Time Stamp:	14:15:47
Application Type:	U.S. National Stage under 35 USC 371

### Payment information:

Submitted with Payment	no
------------------------	----

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Response to Pre-Exam Formalities Notice	DEBE067US_RESP_NOTIFICATI ON_DEF_RESP.pdf	135561 d3f8f1fc87ac6cd2751ecba5a89306102548 cecb	no	4

Warnings:

Information:

2	Sequence Listing (Text File)	DEBE067US_SUBSTITUTE_SEQ LISTING.txt	38575	no	0

**Warnings:**

**Information:**

**Total Files Size (in bytes):**

174136

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

## **EXHIBIT C**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/583,415	Roman MEYER	DEBE:067US/ 10607189

32425  
FULBRIGHT & JAWORSKI L.L.P.  
600 CONGRESS AVE.  
SUITE 2400  
AUSTIN, TX 78701

INTERNATIONAL APPLICATION NO.	
PCT/DE2004/002778	
I.A. FILING DATE	PRIORITY DATE
12/20/2004	12/20/2003

**CONFIRMATION NO. 6633**  
**371 FORMALITIES LETTER**



Date Mailed: 07/14/2009

**NOTIFICATION OF DEFECTIVE RESPONSE**

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- Indication of Small Entity Status
- Priority Document
- Copy of the International Application filed on 06/15/2006
- English Translation of the IA filed on 06/15/2006
- Copy of the International Search Report filed on 06/15/2006
- Copy of IPE Report filed on 06/15/2006
- Preliminary Amendments filed on 06/15/2006
- Information Disclosure Statements filed on 02/13/2007
- Biochemical Sequence Diskette filed on 06/24/2009
- Oath or Declaration filed on 10/31/2008
- Biochemical Sequence Listing filed on 10/31/2008
- U.S. Basic National Fees filed on 06/15/2006
- Priority Documents filed on 06/15/2006
- Power of Attorney filed on 10/31/2008
- Non-English Language Application filed on 06/15/2006

Applicant's response filed 06/24/2009 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 09/02/2008 have not been completed.

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). Refer to attachment or PAIR document dated 7/2/2009 : For questions regarding this error report, please contact Mark Spencer at (571) 272-2533 (or Anne Corrigan at (571)-272-2501)..

**Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR**

1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

**For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:**

- For Rules Interpretation, call (571) 272-0951
- For Patent Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patent Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.

<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at <http://www.uspto.gov/ebc>.

**If you are not using EFS-Web to submit your reply, you must include a copy of this notice.**

KAREN R MCLEAN

---

Telephone: (703) 756-1463

Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: markspencer

Timestamp: [year=2009; month=7; day=2; hr=8; min=17; sec=5; ms=90; ]

\*\*\*\*\*

Reviewer Comments:

1.

E249 Order Sequence Error <211> -> <213>; Expected Mandatory  
Tag: <212> in SEQID ( 9 )

E249 Order Sequence Error <211> -> <213>; Expected Mandatory  
Tag: <212> in SEQID ( 10 )

E249 Order Sequence Error <211> -> <213>; Expected Mandatory  
Tag: <212> in SEQID ( 11 )

E249 Order Sequence Error <211> -> <213>; Expected Mandatory  
Tag: <212> in SEQID ( 12 )

E249 Order Sequence Error <211> -> <213>; Expected Mandatory  
Tag: <212> in SEQID ( 13 )

E249 Order Sequence Error <211> -> <213>; Expected Mandatory  
Tag: <212> in SEQID ( 14 )

E249 Order Sequence Error <211> -> <213>; Expected Mandatory  
Tag: <212> in SEQID ( 15 )

E250 Structural Validation Error; Sequence listing may not be  
indexable

<210> 9

<211> 527

<213> unknown

<220>

<223> protein p12 of T2 phage

\* \* \* \* \*

For SEQ ID # 9 through 15, numeric identifier "<212> Type" is mandatory.  
Please insert numeric identifier <212>, with the appropriate response,  
between numeric identifiers <211> and <213> for each SEQ ID # 9 through

15.

2.

W213	Artificial or Unknown found in <213> in SEQ ID (1)
W213	Artificial or Unknown found in <213> in SEQ ID (2)
W213	Artificial or Unknown found in <213> in SEQ ID (3)
W213	Artificial or Unknown found in <213> in SEQ ID (4)
W213	Artificial or Unknown found in <213> in SEQ ID (5)
W213	Artificial or Unknown found in <213> in SEQ ID (6)
W213	Artificial or Unknown found in <213> in SEQ ID (7)
W213	Artificial or Unknown found in <213> in SEQ ID (8)
W213	Artificial or Unknown found in <213> in SEQ ID (9)
W213	Artificial or Unknown found in <213> in SEQ ID (10)
W213	Artificial or Unknown found in <213> in SEQ ID (11)
W213	Artificial or Unknown found in <213> in SEQ ID (12)
W213	Artificial or Unknown found in <213> in SEQ ID (13)
W213	Artificial or Unknown found in <213> in SEQ ID (14)
W213	Artificial or Unknown found in <213> in SEQ ID (15)

The warnings shown above are ok and require no response.

\*\*\*\*\*

Application No: 10583415

Version No: 2.0

Input Set:

Output Set:

Started: 2009-06-24 14:16:41.386

Finished: 2009-06-24 14:16:43.604

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 218 ms

Total Warnings: 15

Total Errors: 8

No. of SeqIDs Defined: 15

Actual SeqID Count: 15

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
E 249	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in SEQID ( 9 )
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
E 249	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in SEQID ( 10 )
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
E 249	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in SEQID ( 11 )
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
E 249	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in SEQID ( 12 )
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
E 249	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in SEQID ( 13 )



Input Set:

Output Set:

Started: 2009-06-24 14:16:41.386  
Finished: 2009-06-24 14:16:43.604  
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 218 ms  
Total Warnings: 15  
Total Errors: 8  
No. of SeqIDs Defined: 15  
Actual SeqID Count: 15

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
E 249	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in SEQID ( 14 )
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
E 249	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in SEQID ( 15 )
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
E 250	Structural Validation Error; Sequence listing may not be indexable

# SEQUENCE LISTING

<110> MEYER, ROMAN  
SCHUTZ, MICHAEL  
GRALLERT, HOLGER  
GRASSL, RENATE  
MILLER, STEFAN

<120> ENDOTOXIN DETECTION METHOD

<130> DEBE:067US

<140> 10/583,415

<141> 2006-06-15

<150> PCT/DE2004/002778

<151> 2004-12-20

<150> DE 103 60 844.3

<151> 2003-12-20

<160> 15

<170> PatentIn version 3.3

<210> 1

<211> 78

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 1

gaaggaacta gtcatatggc tagctggagc caccgcagc tcgaaaaagg cgccagtaat 60

aatacatatc aacacggt 78

<210> 2

<211> 54

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 2

acgcgcgaag ctctgcgacg gatccatca ttcttttacc ttaattatgt agtt 54

<210> 3

<211> 78

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 3

gaaggaacta gtcacatggc ttgttgagc caccgcagt tcgaaaaagg cgcagtaat

60

aacacatc aacacgtt

78

<210> 4

<211> 78

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 4

gaaggaacta gtcacatggc tagctggagc caccgcagt tcgaaaaagg cgctgtaat

60

aacacatc aacacgtt

78

<210> 5

<211> 19

<212> PRT

<213> artificial sequence

<220>

<223> strep tag

<400> 5

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
1 5 10 15

Thr Tyr Gln

<210> 6

<211> 19

<212> PRT

<213> artificial sequence

<220>

<223> strep tag

<400> 6

Met Ala Cys Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
1 5 10 15

Thr Tyr Gln

<210> 7  
<211> 19  
<212> PRT  
<213> artificial sequence

<220>  
<223> strep tag

<400> 7

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Cys Asn Asn  
1 5 10 15

Thr Tyr Gln

<210> 8  
<211> 539  
<212> PRT  
<213> artificial sequence

<220>  
<223> T4p12 with strep tag

<400> 8

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
1 5 10 15

Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val Lys Phe Asp Pro  
20 25 30

Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val Gln Ala Ala Ile  
35 40 45

Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro Asp Ala Ser Ser  
50 55 60

Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln Glu Val Ile Asp  
65 70 75 80

Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr Leu Ala Thr Arg  
85 90 95

Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly Leu Thr Arg Tyr  
100 105 110

Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn Glu Ser Ser Ile  
115 120 125

Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val Phe Glu Thr Arg  
130 135 140

Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile Ser Ser Leu Pro  
145 150 155 160

Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met Thr Pro Leu Lys  
165 170 175

Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile Ala Pro Ser Lys  
180 185 190

Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln Leu Ala Thr Val  
195 200 205

Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr Ala Ile Ser Pro  
210 215 220

Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr Lys Gly Val Ile  
225 230 235 240

Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn Ala Ser Val Ala  
245 250 255

Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr Thr Ser Met Arg  
260 265 270

Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln Ser Gly Gly Asp  
275 280 285

Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile His Gln Arg Gly  
290 295 300

Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn Thr Leu Thr Ile  
305 310 315 320

Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn Met Thr Gly Gly  
325 330 335

Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu Ile Asp Arg Thr

340

345

350

Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp Ser Leu Pro Ser  
 355 360 365

Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser Ala Ser Asp Cys  
 370 375 380

Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly Gly Ser Ser Ser  
 385 390 395 400

Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ser Gly  
 405 410 415

Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly Asn Asp Gln Phe  
 420 425 430

Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly Tyr Val Gly Glu  
 435 440 445

Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala Gly Gly Phe Gly  
 450 455 460

Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg Arg Ser Asn Phe  
 465 470 475 480

Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg Ser Tyr Phe Thr  
 485 490 495

Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg Asn Ser Arg Tyr  
 500 505 510

Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr Arg Pro Trp Asn  
 515 520 525

Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
 530 535

&lt;210&gt; 9

&lt;211&gt; 527

&lt;213&gt; unknown

&lt;220&gt;

&lt;223&gt; protein p12 of T2 phage

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
20 25 30

Gln Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
35 40 45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln  
50 55 60

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val  
115 120 125

Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile  
165 170 175

Ala Pro Ser Lys Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln  
180 185 190

Leu Ala Thr Val Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr  
210 215 220

Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
225 230 235 240

Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
245 250 255

Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln  
260 265 270

Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

His Gln Arg Gly Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn  
290 295 300

Thr Leu Thr Ile Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn  
305 310 315 320

Met Thr Gly Gly Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu  
325 330 335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
355 360 365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
370 375 380

Gly Thr Ser Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
420 425 430

Tyr Val Gly Glu Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala  
435 440 445



Gly Gly Phe Gly Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg  
450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg  
485 490 495

Asn Ser Arg Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
515 520 525

<210> 10

<211> 527

<213> unknown

<220>

<223> protein p12 of T4 phage

<400> 10

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
20 25 30

His Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
35 40 45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Ile Pro Thr Glu Gln  
50 55 60

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Thr Val Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Ala		
115	120	125
Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile		
130	135	140
Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met		
145	150	155 160
Thr Pro Leu Lys Thr Gln Gln Leu Ala Ile Lys Leu Ile Ala Gln Ile		
165	170	175
Ala Pro Ser Glu Thr Thr Ala Thr Glu Ser Asp Gln Gly Val Val Gln		
180	185	190
Leu Ala Thr Val Ala Gln Val Arg Gln Gly Thr Leu Arg Glu Gly Tyr		
195	200	205
Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Ser Ser Thr Glu Glu Tyr		
210	215	220
Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn		
225	230	235 240
Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr		
245	250	255
Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln		
260	265	270
Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile		
275	280	285
Gln Gln Arg Gly Gly Gln Ile Ile Tyr Gly Thr Leu Arg Ile Glu Asp		
290	295	300
Thr Phe Thr Ile Ala Asn Gly Gly Ala Asn Ile Thr Gly Thr Val Arg		
305	310	315 320
Met Thr Gly Gly Tyr Ile Gln Gly Asn Arg Ile Val Thr Gln Asn Glu		
325	330	335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
 340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
 355 360 365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
 370 375 380

Gly Asn Pro Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
 385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
 405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
 420 425 430

Tyr Val Gly Glu Val Gln Ile Gln Gln Met Ser Tyr His Lys His Ala  
 435 440 445

Gly Gly Phe Gly Glu His Asp Asp Leu Gly Ala Phe Gly Asn Thr Arg  
 450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
 465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Glu Ser Gln Arg  
 485 490 495

Asn Ser Lys Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
 500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
 515 520 525

<210> 11  
 <211> 518  
 <213> unknown

<220>  
 <223> protein p12 of PP01 phage

<400> 11

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Lys Tyr Val  
1 5 10 15

Lys Phe Asp Pro Val Gly Ser Asn Phe Pro Asp Thr Val Thr Thr Val  
20 25 30

Gln Ser Ala Leu Ser Lys Ile Ser Asn Ile Gly Val Asn Gly Ile Pro  
35 40 45

Asp Ala Ser Met Glu Val Lys Gly Ile Ala Met Ile Ala Ser Glu Gln  
50 55 60

Glu Val Leu Asp Gly Thr Asn Asn Ser Lys Ile Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Leu Tyr Pro Asn Ala Thr Glu Thr Lys Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Glu Glu Thr Leu Glu Gly Ser Asp Asn  
100 105 110

Asn Ser Ser Ile Thr Pro Gln Lys Leu Lys Tyr His Thr Asp Asp Val  
115 120 125

Phe Gln Asn Arg Tyr Ser Ser Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Thr Pro Ala Ala Leu Ala Gly Val Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Lys Leu Ala Ile Lys Leu Ile Ser Gln Ile  
165 170 175

Ala Pro Ser Glu Asp Thr Ala Ser Glu Ser Val Arg Gly Val Val Gln  
180 185 190

Leu Ser Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Val Ala Thr Gln Glu Tyr  
210 215 220

Lys Gly Val Ile Arg Leu Gly Thr Gln Ser Glu Ile Asn Ser Asn Leu

225

230

235

240

Gly Asp Val Ala Val Thr Gly Glu Thr Leu Asn Gly Arg Gly Ala Thr  
245 250 255

Gly Ser Met Arg Gly Val Val Lys Leu Thr Thr Gln Ala Gly Ile Ala  
260 265 270

## **EXHIBIT D**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/583,415	Roman MEYER	DEBE:067US/ 10607189

32425  
FULBRIGHT & JAWORSKI L.L.P.  
600 CONGRESS AVE.  
SUITE 2400  
AUSTIN, TX 78701

INTERNATIONAL APPLICATION NO.	
PCT/DE2004/002778	
L.A. FILING DATE	PRIORITY DATE
12/20/2004	12/20/2003

**CONFIRMATION NO. 6633**

**371**

**ABANDONMENT/TERMINATION  
LETTER**



\*OC000000037960477\*

Date Mailed: 09/24/2009

## NOTIFICATION OF ABANDONMENT

The United States Patent and Trademark Office in its capacity as a Designated / Elected Office (37 CFR 1.495) has made the following determination:

- Applicant has failed to respond to the notification of MISSING REQUIREMENTS (Form PCT/DO/EO/905), mailed 07/14/2009 within the time period set therein.

Therefore, the above identified application failed to meet the requirements of 35 U.S.C. 371 and 37 CFR 1.495, and is ABANDONED AS TO THE UNITED STATES OF AMERICA.

KAREN R MCLEAN

Telephone: (703) 756-1463

## **EXHIBIT E**



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Roman MEYER *et al.*

Serial No.: 10/583,415

Filed: June 15, 2006

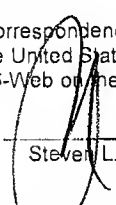
For: ENDOTOXIN DETECTION METHOD

Group Art Unit: 1645

Examiner: Not Yet Assigned

Atty. Dkt. No.: DEBE:067US

Confirmation No.: 6633

CERTIFICATE OF ELECTRONIC TRANSMISSION 37 C.F.R. § 1.8	
I hereby certify that this correspondence is being electronically filed with the United States Patent and Trademark Office via EFS-Web on the date below:	
November 13, 2009 Date	 Steven L. Highlander

**PETITION UNDER 37 C.F.R. § 1.181 (A) TO WITHDRAW HOLDING OF  
ABANDONMENT BASED ON FAILURE TO RESPOND TO NOTIFICATION OF  
DEFECTIVE RESPONSE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Applicants hereby petition under 37 C.F.R. § 1.181 (a) to request withdrawal of a holding of abandonment based on failure to respond to the Notification of Defective Response, mail date July 14, 2009. On September 28, 2009, Applicants received a Notification of Abandonment based on the failure to respond to the Notification of Defective Response, mail date July 14, 2009, in the above-referenced case. However, a Notification of Defective Response was never received by Applicants' representative. According to *Delgar v. Schuyler*, 172 U.S.P.Q. 513

(D.D.C. 1971) and MPEP 711.03 (c), Applicants' representative can provide a statement that fulfills the showing required to establish non-receipt of a Patent and Trademark Office communication. Such a statement is provided below.

A Notification of Abandonment was mailed on September 24, 2009 (the "Notification"). On or around September 28, 2009, the Notification was received and docketed by the docketing secretary for the law firm of Fulbright & Jaworski in Austin, Texas. The Notification was then forwarded to undersigned, the handling attorney and partner in charge for the prosecution of the present application. On September 29, 2009, the entire file of this case and docketing system was searched; attached is a declaration asserting these facts (Appendix A). A Notification of Defective Response was not found in the file. Also, a Notification of Defective Response was not docketed in this case. A copy of the executed Declaration by Deborah Hooper, Docketing Supervisor of Fulbright & Jaworski in Austin, Texas, stating that a Notification of Defective Response was never received and/or docketed for the present application is attached (Appendix B).


This office's practice with respect to communications from the Patent and Trademark Office is that communications go directly to the docketing secretary after being received in our mailroom. The docketing secretary opens the mail, docketed any deadlines necessitated by a PTO communication—including responses to Notification of Defective Response—and forwards the communication to a handling attorney or patent agent.

In view of the statement above that the Notification of Defective Response was not received by practitioners for this case and that a search of the file for the above-referenced application and of the docket confirm the non-receipt of the communication, Applicants'

representative respectfully requests the withdrawal of the holding of abandonment in this case for the failure to timely reply to the Notification of Defective Response.

This petition is believed timely filed as the Notification of Abandonment was mailed on September 24, 2009 and this petition is being filed less than two months after that date. No fee is believed due. However, if any fees is required for any reason relating to the enclosed materials the Commissioner is authorized to deduct said fees from or to Fulbright & Jaworski L.L.P. Deposit Account No. 50-1212/DEBE:067US.

Respectfully submitted,

  
Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 474-5201

Date: November 13, 2009

## **APPENDIX A**

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Roman MEYER *et al.*

Serial No.: 10/583,415

Filed: June 15, 2006

For: ENDOTOXIN DETECTION METHOD

Group Art Unit: 1645

Examiner: Not Yet Assigned

Atty. Dkt. No.: DEBE:067US

Confirmation No.: 6633

CERTIFICATE OF ELECTRONIC TRANSMISSION  
37 C.F.R. § 1.8

I hereby certify that this correspondence is being  
electronically filed with the United States Patent and  
Trademark Office via EFS-Web on the date below:

November 13, 2009

Date

Steven L. Highlander

DECLARATION OF STEVEN L. HIGHLANDER

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

I, Steven L. Highlander, hereby declare:

1. I am the handling attorney and partner in charge for the prosecution of the above-referenced case.

2. I received and reviewed the Notification of Abandonment for failure to respond to the Notification of Defective Response (date mailed July 14, 2009) on September 28, 2009.


3. Subsequently, I reviewed the entire file for this case for a Notification of Defective Response. I did not find one.

4. I also checked our docketing system and records through one of our docketers, who confirmed that our docketing system and records did not indicate we had received a Notification of Defective Response or docketed a response deadline.

6. It is my belief that our office did not receive a Notification of Defective Response with respect to the above-referenced case.

7. I hereby declare that all statements made of my own knowledge are true and all statements made on information are believed to be true and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

Respectfully submitted,

  
Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 474-5201

Date: November 13, 2009

## **APPENDIX B**

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Roman MEYER *et al.*

Serial No.: 10/583,415

Filed: June 15, 2006

For: ENDOTOXIN DETECTION METHOD

Group Art Unit: 1645

Examiner: Not Yet Assigned

Atty. Dkt. No.: DEBE:067US

Confirmation No.: 6633

CERTIFICATE OF ELECTRONIC TRANSMISSION  
37 C.F.R. § 1.8

I hereby certify that this correspondence is being  
electronically filed with the United States Patent and  
Trademark Office via EFS-Web on the date below:

November 13, 2009  
Date

Steven L. Highlander

**DECLARATION OF DEBORAH HOOPER UNDER 37 C.F.R. 1.137(b)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

I, Deborah Hooper declare:

1. I am an adult resident of the State of Texas.
2. I am, and at all relevant times, Docketing Supervisor for Fulbright & Jaworski L.L.P., located in Austin, Texas.
3. I have checked the docketing records for mail received from the U.S. Patent Office between the days of July 15, 2009 and September 28, 2009.
4. Upon information and belief, a Notification of Defective Response for Serial Number 10/583,415, was not received by our docketing department which receives and docket all correspondence from the U.S. Patent Office.



5. I declare, under penalty of perjury under the laws of the United States of America, that the foregoing is true and correct. I make the statements set forth above of my own personal knowledge, and, if called upon to do so, could testify competently thereto. I acknowledge that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. §1001) and may jeopardize the validity of the patent application and any corresponding patent.

Respectfully submitted,

By Deborah Hooper

Deborah Hooper, Docketing Supervisor  
Fulbright & Jaworski, LLP  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 474 5201

Date: November 13, 2009

## **EXHIBIT G**

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Roman MEYER *et al.*

Serial No.: 10/583,415

Filed: June 15, 2006

For: ENDOTOXIN DETECTION METHOD

Group Art Unit: 1645

Examiner: Not Yet Assigned

Atty. Dkt. No.: DEBE:067US

Confirmation No.: 6633

CERTIFICATE OF ELECTRONIC TRANSMISSION  
37 C.F.R. § 1.8

I hereby certify that this correspondence is being  
electronically filed with the United States Patent and  
Trademark Office via EFS-Web on the date below:

November 13, 2009  
Date

Steven L. Highlander

**RESPONSE TO NOTIFICATION OF DEFECTIVE RESPONSE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

In response to the Notification of Defective Response, dated July 14, 2009, there are enclosed herewith:

- (a) Substitute Sequence Listing in .txt format;
- (b) A Preliminary Amendment; and
- (c) A copy of Notification of Defective Response.

It is believed that no fee is due with this communication, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed document, the

Commissioner is authorized to deduct or credit said fees from or to Fulbright & Jaworski Deposit  
Account No. 50-1212/DEBE:067US.

Respectfully submitted,



Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 474-5201

Date: November 13, 2009



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/583,415	Roman MEYER	DEBE:067US/ 10607189

32425  
FULBRIGHT & JAWORSKI L.L.P.  
600 CONGRESS AVE.  
SUITE 2400  
AUSTIN, TX 78701

INTERNATIONAL APPLICATION NO.
-------------------------------

PCT/DE2004/002778

I.A. FILING DATE	PRIORITY DATE
12/20/2004	12/20/2003

CONFIRMATION NO. 6633  
371 FORMALITIES LETTER



Date Mailed: 07/14/2009

## NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- Indication of Small Entity Status
- Priority Document
- Copy of the International Application filed on 06/15/2006
- English Translation of the IA filed on 06/15/2006
- Copy of the International Search Report filed on 06/15/2006
- Copy of IPE Report filed on 06/15/2006
- Preliminary Amendments filed on 06/15/2006
- Information Disclosure Statements filed on 02/13/2007
- Biochemical Sequence Diskette filed on 06/24/2009
- Oath or Declaration filed on 10/31/2008
- Biochemical Sequence Listing filed on 10/31/2008
- U.S. Basic National Fees filed on 06/15/2006
- Priority Documents filed on 06/15/2006
- Power of Attorney filed on 10/31/2008
- Non-English Language Application filed on 06/15/2006

Applicant's response filed 06/24/2009 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 09/02/2008 have not been completed.

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). Refer to attachment or PAIR document dated 7/2/2009 : For questions regarding this error report, please contact Mark Spencer at (571) 272-2533 (or Anne Corrigan at (571)-272-2501)..

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR

**1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).**

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

**For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:**

- **For Rules Interpretation, call (571) 272-0951**
- **For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.**
- **Send e-mail correspondence for Patentin Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)**

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.

<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <http://www.uspto.gov/ebc>.

**If you are not using EFS-Web to submit your reply, you must include a copy of this notice.**

KAREN R MCLEAN

---

Telephone: (703) 756-1463

**PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Roman MEYER *et al.*

Serial No.: 10/583,415

Filed: June 15, 2006

For: ENDOTOXIN DETECTION METHOD

Group Art Unit: 1645

Examiner: Not Yet Assigned

Atty. Dkt. No.: DEBE:067US

Confirmation No.: 6633

CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this correspondence is being electronically filed with the United States Patent and Trademark Office via EFS-Web on the date below:

November 13, 2009

Date

Steven E. Highlander

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Applicants respectfully submit this Preliminary Amendment in the above-referenced case. Consideration of this case in view of the amendments made herein is respectfully requested.

**Amendments to the Specification** begin on page 2.

**Remarks** begin on page 3.

## AMENDMENT

### AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

Please delete the Sequence Listing and insert therefor the substitute Sequence Listing submitted as text currently herewith through EFS-Web.



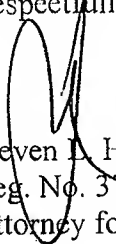
### REMARKS

The specification has been amended to introduce the Substitute Sequence Listing. No new matter is added by entry of this preliminary amendment.

It is believed that no fee is due with this communication, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed document, the Commissioner is authorized to deduct or credit said fees from or to Fulbright & Jaworski Deposit Account No. 50-1212/DEBE:067US.

The Examiner is invited to contact the undersigned attorney with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

  
Steven D. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 474-5201

Date: November 13, 2009

DEBE067US.txt  
SEQUENCE LISTING

<110> MEYER, ROMAN  
SCHUTZ, MICHAEL  
GRALLERT, HOLGER  
GRASSL, RENATE  
MILLER, STEFAN

<120> ENDOTOXIN DETECTION METHOD

<130> DEBE:067US

<140> 10/583,415  
<141> 2006-06-15

<150> PCT/DE2004/002778  
<151> 2004-12-20

<150> DE 103 60 844.3  
<151> 2003-12-20

<160> 15

<170> PatentIn version 3.3

<210> 1  
<211> 78  
<212> DNA  
<213> artificial sequence

<220>  
<223> synthetic primer

<400> 1  
gaaggaacta gtcatatggc tagctggagc caccgcagc tcgaaaaagg cgccagtaat 60  
aatacatatc aacacgtt 78

<210> 2  
<211> 54  
<212> DNA  
<213> artificial sequence

<220>  
<223> synthetic primer

<400> 2  
acgcgcaaag cttgtcgacg gacccatca ttcttttacc ttaattatgt agtt 54

<210> 3  
<211> 78  
<212> DNA  
<213> artificial sequence

<220>  
<223> synthetic primer

<400> 3  
gaaggaacta gtcatatggc ttgttggagc caccgcagc tcgaaaaagg cgccagtaat 60  
aatacatatc aacacgtt 78

DEBE067US.txt

<210> 4  
 <211> 78  
 <212> DNA  
 <213> artificial sequence

<220>  
 <223> synthetic primer

<400> 4  
 gaaggaacta gtcatatggc tagctggagc caccgcagc tcgaaaaagg cgcctgtaat 60  
 aatacatatc aacacggt 78

<210> 5  
 <211> 19  
 <212> PRT  
 <213> artificial sequence

<220>  
 <223> synthetic peptide

<400> 5

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
 1 5 10 15

Thr Tyr Gln

<210> 6  
 <211> 19  
 <212> PRT  
 <213> artificial sequence

<220>  
 <223> synthetic peptide

<400> 6

Met Ala Cys Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
 1 5 10 15

Thr Tyr Gln

<210> 7  
 <211> 19  
 <212> PRT  
 <213> artificial sequence

<220>  
 <223> synthetic peptide

<400> 7

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Cys Asn Asn  
 Page 2

1

5

Thr Tyr Gln

<210> 8  
<211> 539  
<212> PRT  
<213> artificial sequence

<220>  
<223> Synthetic peptide

<400> 8

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
1 5 10 15

Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val Lys Phe Asp Pro  
20 25 30

Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val Gln Ala Ala Ile  
35 40 45

Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro Asp Ala Ser Ser  
50 55 60

Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln Glu Val Ile Asp  
65 70 75 80

Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr Leu Ala Thr Arg  
85 90 95

Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly Leu Thr Arg Tyr  
100 105 110

Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn Glu Ser Ser Ile  
115 120 125

Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val Phe Glu Thr Arg  
130 135 140

Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile Ser Ser Leu Pro  
145 150 155 160

Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met Thr Pro Leu Lys  
165 170 175

Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile Ala Pro Ser Lys  
180 185 190

DEBE067US.txt

Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln Leu Ala Thr Val  
195 200 205

Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr Ala Ile Ser Pro  
210 215 220

Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr Lys Gly Val Ile  
225 230 235 240

Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn Ala Ser Val Ala  
245 250 255

Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr Thr Ser Met Arg  
260 265 270

Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln Ser Gly Gly Asp  
275 280 285

Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile His Gln Arg Gly  
290 295 300

Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn Thr Leu Thr Ile  
305 310 315 320

Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn Met Thr Gly Gly  
325 330 335

Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu Ile Asp Arg Thr  
340 345 350

Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp Ser Leu Pro Ser  
355 360 365

Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser Ala Ser Asp Cys  
370 375 380

Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly Gly Ser Ser Ser  
385 390 395 400

Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ser Gly  
405 410 415

Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly Asn Asp Gln Phe  
420 425 430

Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly Tyr Val Gly Glu  
Page 4

435

440

445

Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala Gly Gly Phe Gly  
450 455 460

Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg Arg Ser Asn Phe  
465 470 475 480

Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg Ser Tyr Phe Thr  
485 490 495

Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg Asn Ser Arg Tyr  
500 505 510

Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr Arg Pro Trp Asn  
515 520 525

Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
530 535

<210> 9  
<211> 527  
<212> PRT  
<213> artificial sequence

<220>  
<223> Synthetic peptide

<400> 9

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
20 25 30

Gln Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
35 40 45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln  
50 55 60

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110

DEBE067US.txt

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val  
115 120 125

Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile  
165 170 175

Ala Pro Ser Lys Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln  
180 185 190

Leu Ala Thr Val Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr  
210 215 220

Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
225 230 235 240

Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
245 250 255

Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln  
260 265 270

Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

His Gln Arg Gly Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn  
290 295 300

Thr Leu Thr Ile Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn  
305 310 315 320

Met Thr Gly Gly Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu  
325 330 335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
Page 6

355

360

365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
 370 375 380

Gly Thr Ser Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
 385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
 405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
 420 425 430

Tyr Val Gly Glu Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala  
 435 440 445

Gly Gly Phe Gly Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg  
 450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
 465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg  
 485 490 495

Asn Ser Arg Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
 500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
 515 520 525

<210> 10

<211> 527

<212> PRT

<213> artificial sequence

<220>

<223> Synthetic peptide

<400> 10

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
 1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
 20 25 30

His Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
 35 40 45



DEBE067US.txt

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Ile Pro Thr Glu Gln  
 50 55 60  
 Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
 65 70 75 80  
 Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Thr Val Tyr Gly  
 85 90 95  
 Leu Thr Arg Tyr Ser Thr Asn Asp Glu Ala Ile Ala Gly Val Asn Asn  
 100 105 110  
 Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Ala  
 115 120 125  
 Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
 130 135 140  
 Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
 145 150 155 160  
 Thr Pro Leu Lys Thr Gln Gln Leu Ala Ile Lys Leu Ile Ala Gln Ile  
 165 170 175  
 Ala Pro Ser Glu Thr Thr Ala Thr Glu Ser Asp Gln Gly Val Val Gln  
 180 185 190  
 Leu Ala Thr Val Ala Gln Val Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
 195 200 205  
 Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Ser Ser Thr Glu Glu Tyr  
 210 215 220  
 Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
 225 230 235 240  
 Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
 245 250 255  
 Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln  
 260 265 270  
 Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
 275 280 285  
 Gln Gln Arg Gly Gly Gln Ile Ile Tyr Gly Thr Leu Arg Ile Glu Asp

290

295

Thr Phe Thr Ile Ala Asn Gly Gly Ala Asn Ile Thr Gly Thr Val Arg  
305 310 315 320

Met Thr Gly Gly Tyr Ile Gln Gly Asn Arg Ile Val Thr Gln Asn Glu  
325 330 335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
355 360 365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
370 375 380

Gly Asn Pro Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
420 425 430

Tyr Val Gly Glu Val Gln Ile Gln Gln Met Ser Tyr His Lys His Ala  
435 440 445

Gly Gly Phe Gly Glu His Asp Asp Leu Gly Ala Phe Gly Asn Thr Arg  
450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Glu Ser Gln Arg  
485 490 495

Asn Ser Lys Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
515 520 525

<210> 11  
<211> 518  
<212> PRT  
<213> artificial sequence

DEBE067US.txt

<220>

<223> Synthetic peptide

<400> 11

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Lys Tyr Val  
1 5 10 15

Lys Phe Asp Pro Val Gly Ser Asn Phe Pro Asp Thr Val Thr Thr Val  
20 25 30

Gln Ser Ala Leu Ser Lys Ile Ser Asn Ile Gly Val Asn Gly Ile Pro  
35 40 45

Asp Ala Ser Met Glu Val Lys Gly Ile Ala Met Ile Ala Ser Glu Gln  
50 55 60

Glu Val Leu Asp Gly Thr Asn Asn Ser Lys Ile Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Leu Tyr Pro Asn Ala Thr Glu Thr Lys Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Glu Glu Thr Leu Glu Gly Ser Asp Asn  
100 105 110

Asn Ser Ser Ile Thr Pro Gln Lys Leu Lys Tyr His Thr Asp Asp Val  
115 120 125

Phe Gln Asn Arg Tyr Ser Ser Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Thr Pro Ala Ala Leu Ala Gly Val Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Lys Leu Ala Ile Lys Leu Ile Ser Gln Ile  
165 170 175

Ala Pro Ser Glu Asp Thr Ala Ser Glu Ser Val Arg Gly Val Val Gln  
180 185 190

Leu Ser Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Val Ala Thr Gln Glu Tyr  
210 215 220

Lys Gly Val Ile Arg Leu Gly Thr Gln Ser Glu Ile Asn Ser Asn Leu  
Page 10

225                      230                      235                      240  
 Gly Asp Val Ala Val Thr Gly Glu Thr Leu Asn Gly Arg Gly Ala Thr  
                                  245                                   250                                   255  
 Gly Ser Met Arg Gly Val Val Lys Leu Thr Thr Gln Ala Gly Ile Ala  
                                  260                                   265                                   270  
 Pro Glu Gly Asp Ser Ser Gly Ala Leu Ala Trp Asn Ala Asp Val Ile  
                                  275                                   280                                   285  
 Asn Thr Arg Gly Gly Gln Thr Ile Asn Gly Ser Leu Asn Leu Asp His  
                                  290                                   295                                   300  
 Leu Thr Ala Asn Gly Ile Trp Ser Arg Gly Gly Met Trp Lys Asn Gly  
                                  305                                   310                                   315                                   320  
 Asp Gln Pro Val Ala Thr Glu Arg Tyr Ala Ser Glu Arg Val Pro Val  
                                  325                                   330                                   335  
 Gly Thr Ile Met Met Phe Ala Gly Asp Ser Ala Pro Pro Gly Trp Ile  
                                  340                                   345                                   350  
 Met Cys His Gly Gly Thr Val Ser Gly Asp Gln Tyr Pro Asp Tyr Arg  
                                  355                                   360                                   365  
 Asn Thr Val Gly Thr Arg Phe Gly Gly Asp Trp Asn Asn Pro Gly Ile  
                                  370                                   375                                   380  
 Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ala Gly Thr Gly Gly His  
                                  385                                   390                                   395                                   400  
 Ile Leu Asn Gln Arg Gly Gln Asp Gly Tyr Gly Lys Asp Arg Leu Gly  
                                  405                                   410                                   415  
 Val Gly Cys Asp Gly Met His Val Gly Gly Val Gln Ala Gln Gln Ile  
                                  420                                   425                                   430  
 Ser Tyr His Lys His Ala Gly Ala Trp Gly Glu Asn Gly Asn Asn Arg  
                                  435                                   440                                   445  
 Gly Tyr Ala Pro Phe Gly Ala Ser Asn Gly Ser Gly Tyr Leu Gly Asn  
                                  450                                   455                                   460  
 Gly Arg Ser Ala Asp Trp Asp Asn His Leu Phe Phe Thr Asn Asp Gly  
                                  465                                   470                                   475                                   480

DEBE067US.txt

Phe Glu Met Gly Gly Pro Arg Asp Ser Phe Gly Thr Leu Asn Arg Glu  
485 490 495

Gly Leu Ile Gly Tyr Glu Thr Arg Pro Trp Asn Ile Ser Leu Asn Tyr  
500 505 510

Ile Ile Lys Ile His Tyr  
515

<210> 12  
<211> 516  
<212> PRT  
<213> artificial sequence

<220>  
<223> Synthetic peptide

<400> 12

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Val Tyr Val  
1 5 10 15

Glu Phe Asp Pro Thr Gly Ser Asn Phe Asp Ser Ser Ile Thr Asn Val  
20 25 30

Gln Ala Ala Leu Ala Ser Ile Ser Ala Tyr Gly Val Lys Gly Val Pro  
35 40 45

Asp Ala Ser Glu Ala Glu Lys Gly Val Ile Gln Leu Ala Thr Glu Gln  
50 55 60

Glu Val Leu Asp Gly Phe Asn Ser Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Asn Ala Arg Leu Gln Tyr Pro Asn Ala Ser Glu Thr Gln Tyr Gly  
85 90 95

Val Thr Lys Tyr Ala Thr Gln Glu Glu Ala Ile Ala Gly Thr Leu Asp  
100 105 110

Thr Val Ser Ile Thr Pro Leu Lys Leu Asn Gln Thr Ile Asp Asn Thr  
115 120 125

Phe Ser Thr Arg Tyr Ser Thr Glu Thr Thr Asn Gly Val Ile Lys Ile  
130 135 140

Ala Thr Gln Thr Ala Ala Leu Ala Gly Ser Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Ile Lys Leu Ile Ser Gln Ile  
Page 12

Ala Pro Asn Asn Asp Pro Ala Ser Glu Ser Ile Thr Gly Val Val Arg  
180 185 190

Leu Ala Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Val Ala Thr Gln Glu Tyr  
210 215 220

Lys Gly Val Ile Arg Leu Gly Thr Gln Ala Glu Ile Asn Ser Asn Leu  
225 230 235 240

Gly Asp Val Ala Val Thr Gly Glu Thr Leu Asn Gly Arg Gly Ala Thr  
245 250 255

Gly Ser Met Arg Gly Val Val Lys Leu Thr Thr Gln Ala Gly Val Ala  
260 265 270

Pro Glu Gly Asp Ser Ser Gly Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

Asn Thr Arg Gly Gly Gln Thr Ile Asn Gly Ser Leu Asn Leu Asp His  
290 295 300

Leu Thr Ala Asn Gly Ile Trp Ser Arg Gly Gly Met Trp Lys Asn Gly  
305 310 315 320

Asp Gln Pro Val Ala Thr Glu Arg Tyr Ala Ser Glu Arg Val Pro Val  
325 330 335

Gly Thr Ile Gln Met Phe Ala Gly Asp Ser Ala Pro Pro Gly Trp Val  
340 345 350

Leu Cys His Gly Gly Thr Ile Ser Gly Asp Gln Phe Pro Asp Tyr Arg  
355 360 365

Asn Val Val Gly Thr Arg Phe Gly Gly Asp Trp Asn Asn Pro Gly Ile  
370 375 380

Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ala Gly Thr Gly Ser His  
385 390 395 400

Ile Leu Asn Asn Arg Gly Gln Asp Gly Tyr Gly Lys Asp Arg Leu Gly  
405 410 415

Val Gly Cys Asp Gly Met His Val Gly Gly Val Gln Ala Gln Gln Met  
 420 425 430

Ser Tyr His Lys His Ala Gly Gly Trp Gly Glu Phe Gln Arg His Glu  
 435 440 445

Ala Pro Phe Gly Ala Ser Val Tyr Gln Gly Tyr Leu Gly Thr Arg Lys  
 450 455 460

Tyr Ser Asp Trp Asp Asn Ala Ser Tyr Phe Thr Asn Asp Gly Phe Glu  
 465 470 475 480

Leu Gly Gly His Arg Asp Ala Thr Gly Thr Leu Asn Arg Glu Gly Leu  
 485 490 495

Ile Gly Tyr Glu Thr Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile  
 500 505 510

Lys Val His Tyr  
 515

<210> 13  
 <211> 516  
 <212> PRT  
 <213> artificial sequence

<220>  
 <223> synthetic peptide

<400> 13

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Lys Tyr Val  
 1 5 10 15

Lys Phe Asp Pro Thr Gly Ser Asn Phe Pro Asp Thr Val Thr Thr Val  
 20 25 30

Gln Ser Ala Leu Ser Lys Ile Ser Asn Ile Gly Val Asn Gly Ile Pro  
 35 40 45

Asp Ala Thr Met Glu Val Lys Gly Ile Ala Met Ile Ala Ser Glu Gln  
 50 55 60

Glu Val Leu Asp Gly Thr Asn Asn Ser Lys Ile Val Thr Pro Ala Thr  
 65 70 75 80

Leu Ala Thr Arg Leu Leu Tyr Pro Asn Ala Thr Glu Thr Lys Tyr Gly  
 85 90 95

Leu Thr Arg Tyr Ser Thr Asn Glu Glu Thr Leu Glu Gly Ser Asp Asn  
 Page 14

```

100                               105                               110
Asn Ser Ser Ile Thr Pro Gln Lys Leu Lys Tyr His Thr Asp Asp Val
115                               120                               125

Phe Gln Asn Arg Tyr Ser Ser Glu Ser Ser Asn Gly Val Ile Lys Ile
130                               135                               140

Ser Ser Thr Pro Ala Ala Leu Ala Gly Val Asp Asp Thr Thr Ala Met
145                               150                               155                               160

Thr Pro Leu Lys Thr Gln Lys Leu Ala Ile Lys Leu Ile Ser Gln Ile
165                               170                               175

Ala Pro Ser Glu Asp Thr Ala Ser Glu Ser Val Arg Gly Val Val Gln
180                               185                               190

Leu Ser Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr
195                               200                               205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Val Ala Thr Gln Glu Tyr
210                               215                               220

Lys Gly Val Ile Arg Leu Gly Thr Gln Ser Glu Ile Asn Ser Asn Leu
225                               230                               235                               240

Gly Asp Val Ala Val Thr Gly Gly Thr Leu Asn Gly Arg Gly Ala Thr
245                               250                               255

Gly Ser Met Arg Gly Val Val Lys Leu Thr Thr Gln Ala Gly Ile Ala
260                               265                               270

Pro Glu Gly Asp Ser Ser Gly Ala Leu Ala Trp Asn Ala Asp Val Ile
275                               280                               285

Asn Thr Arg Gly Gly Gln Thr Ile Asn Gly Ser Leu Asn Leu Asp His
290                               295                               300

Leu Thr Ala Asn Gly Ile Trp Ser Arg Gly Gly Met Trp Lys Asn Gly
305                               310                               315                               320

Asp Gln Pro Val Ala Thr Glu Arg Tyr Ala Ser Glu Arg Val Pro Val
325                               330                               335

Gly Thr Ile Met Met Phe Ala Gly Asp Ser Ala Pro Pro Gly Trp Ile
340                               345                               350

```



Met Cys His Gly Gly Thr Val Ser Gly Asp Gln Tyr Pro Asp Tyr Arg  
 355 360 365

Asn Thr Val Gly Thr Arg Phe Gly Gly Asp Trp Asn Asn Pro Gly Ile  
 370 375 380

Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ala Gly Thr Gly Gly His  
 385 390 395 400

Ile Leu Asn Gln Arg Gly Gln Asp Gly Tyr Gly Lys Asp Arg Leu Gly  
 405 410 415

Val Gly Cys Asp Gly Met His Val Gly Gly Val Gln Ala Gln Gln Met  
 420 425 430

Ser Tyr His Lys His Ala Gly Gly Trp Gly Glu Tyr Asn Arg Ser Glu  
 435 440 445

Gly Pro Phe Gly Ala Ser Val Tyr Gln Gly Tyr Leu Gly Thr Arg Lys  
 450 455 460

Tyr Ser Asp Trp Asp Asn Ala Ser Tyr Phe Thr Asn Asp Gly Phe Glu  
 465 470 475 480

Leu Gly Gly Pro Arg Asp Ala Leu Gly Thr Leu Asn Arg Glu Gly Leu  
 485 490 495

Ile Gly Tyr Glu Thr Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile  
 500 505 510

Lys Ile His Tyr  
 515

<210> 14  
 <211> 527  
 <212> PRT  
 <213> artificial sequence

<220>  
 <223> Synthetic peptide

<400> 14

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
 1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
 20 25 30

Gln Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
 Page 16

35

40

45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln  
50 55 60

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Thr Val Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Ala  
115 120 125

Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Ile Lys Leu Ile Ala Gln Ile  
165 170 175

Ala Pro Ser Glu Thr Thr Ala Thr Glu Ser Asp Gln Gly Val Val Gln  
180 185 190

Leu Ala Thr Val Ala Gln Val Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Ser Ala Thr Glu Glu Tyr  
210 215 220

Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
225 230 235 240

Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
245 250 255

Thr Ser Met Arg Gly Val Val Arg Leu Thr Thr Thr Ala Gly Ser Gln  
260 265 270

Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

DEBE067US.txt

His Gln Arg Gly Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn  
290 295 300

Thr Leu Thr Ile Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn  
305 310 315 320

Met Thr Gly Gly Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu  
325 330 335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
355 360 365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
370 375 380

Gly Ser Ser Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
420 425 430

Tyr Val Gly Glu Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala  
435 440 445

Gly Gly Phe Gly Glu Trp Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg  
450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg  
485 490 495

Asn Ser Arg Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
515 520 525

<210> 15  
<211> 516  
<212> PRT

<213> artificial sequence

<220>

<223> Synthetic peptide

<400> 15

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Lys Tyr Val  
1 5 10 15

Lys Phe Asp Pro Val Gly Ser Asn Phe Pro Asp Thr Val Thr Thr Val  
20 25 30

Gln Ser Ala Leu Ser Lys Ile Ser Asn Ile Gly Val Asn Gly Ile Pro  
35 40 45

Asp Ala Thr Met Glu Val Lys Gly Ile Ala Met Ile Ala Ser Glu Gln  
50 55 60

Glu Val Leu Asp Gly Thr Asn Asn Ser Lys Ile Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Leu Tyr Pro Asn Ala Thr Glu Thr Lys Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Glu Glu Thr Leu Glu Gly Ser Asp Asn  
100 105 110

Asn Ser Ser Ile Thr Pro Gln Lys Leu Lys Tyr His Thr Asp Asp Val  
115 120 125

Phe Gln Asn Arg Tyr Ser Ser Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Thr Pro Ala Ala Leu Ala Gly Val Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Lys Leu Ala Ile Lys Leu Ile Ser Gln Ile  
165 170 175

Ala Pro Ser Glu Asp Thr Ala Ser Glu Ser Val Arg Gly Val Val Gln  
180 185 190

Leu Ser Thr Val Ala Gln Thr Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Val Ala Thr Gln Glu Tyr  
210 215 220

DEBE067US.txt

Lys Gly Val Ile Arg Leu Gly Thr Gln Ser Glu Ile Asn Ser Asn Leu  
225 230 235 240

Gly Asp Val Ala Val Thr Gly Glu Thr Leu Asn Gly Arg Gly Ala Thr  
245 250 255

Ser Ser Met Arg Gly Val Val Lys Leu Thr Thr Gln Ala Gly Ile Ala  
260 265 270

Pro Glu Gly Asp Gly Ser Gly Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

Asn Thr Arg Gly Gly Gln Thr Ile Asn Gly Ser Leu Asn Leu Asp His  
290 295 300

Leu Thr Ala Asn Gly Ile Trp Ser Arg Gly Gly Met Trp Lys Asn Gly  
305 310 315 320

Asp Gln Pro Val Ala Thr Glu Arg Tyr Ala Ser Glu Arg Val Pro Val  
325 330 335

Gly Thr Ile Met Met Phe Ala Gly Asp Ser Ala Pro Pro Gly Trp Ile  
340 345 350

Met Cys His Gly Gly Thr Val Ser Gly Asp Gln Tyr Pro Asp Tyr Arg  
355 360 365

Asn Thr Val Gly Ala Arg Phe Gly Gly Asp Trp Asn Asn Pro Gly Ile  
370 375 380

Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ala Gly Thr Gly Gly His  
385 390 395 400

Ile Leu Asn Gln Arg Gly Gln Asp Gly Tyr Gly Lys Asp Arg Leu Gly  
405 410 415

Val Gly Cys Asp Gly Met His Val Gly Gly Val Gln Ala Gln Gln Met  
420 425 430

Ser Tyr His Lys His Ala Gly Gly Trp Gly Glu Tyr Gln Arg His Glu  
435 440 445

Ala Pro Phe Gly Ala Ser Val Tyr Gln Gly Tyr Leu Gly Thr Arg Lys  
450 455 460

Tyr Ser Asp Trp Asp Asn Ala Ser Tyr Phe Thr Asn Asp Gly Phe Glu  
465 470 475 480

DEBE067US.txt

Leu Gly Gly Pro Arg Asp Ala Leu Gly Thr Leu Asn Arg Glu Gly Leu  
485 490 495

Ile Gly Tyr Glu Thr Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile  
500 505 510

Lys Ile His Tyr  
515

## Electronic Acknowledgement Receipt

EFS ID:	6446667
Application Number:	10583415
International Application Number:	
Confirmation Number:	6633
Title of Invention:	Endotoxin detection method
First Named Inventor/Applicant Name:	Roman MEYER
Customer Number:	32425
Filer:	Steven Lee Highlander/Richard Ortiz
Filer Authorized By:	Steven Lee Highlander
Attorney Docket Number:	DEBE:067US/ 10607189
Receipt Date:	13-NOV-2009
Filing Date:	
Time Stamp:	09:14:04
Application Type:	U.S. National Stage under 35 USC 371

### Payment information:

Submitted with Payment	no
------------------------	----

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Petition for review by the Office of Petitions.	DEBE067US_PETITION_WITHDRAW_ABN.pdf	210418 eb6f827818e815402a283827763cf651ee430a0	no	9

### Warnings:

### Information:

2	Applicant Response to Pre-Exam Formalities Notice	DEBE067US_RESP_NOTICE_DEFECTIVE_RESP.pdf	140433	no	4
			3e8e7f6a42ecfa18d6803d72d123af73928eac1c2		

**Warnings:**

**Information:**

3		DEBE067US_PRELIM_AMNDT.pdf	53251	yes	3
			03d4d9343e7f13ea2725b09f05e79ealc105bfaf		

**Multipart Description/PDF files in .zip description**

	Document Description	Start	End
	Preliminary Amendment	1	1
	Specification	2	2
	Applicant Arguments/Remarks Made in an Amendment	3	3

**Warnings:**

**Information:**

4	Sequence Listing (Text File)	DEBE067US_SUB_SEQ_LISTING.txt	38712	no	0

**Warnings:**

**Information:**

<b>Total Files Size (in bytes):</b>	442814
-------------------------------------	--------

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



## **EXHIBIT F**



08 DEC 2009

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
www.uspto.gov

STEVEN L. HIGHLANDER  
FULBRIGHT & JAWORSKI L.L.P.  
600 CONGRESS AVE.  
SUITE 2400  
AUSTIN, TX 78701

In re Application of:	:	
MEYER, ROMAN et al	:	DECISION
Application No.: 10/583,415	:	
PCT Application No.: PCT/DE2004/002778	:	
Int. Filing Date: 20 December 2004	:	UNDER
Priority Date: 20 December 2003	:	
Atty Docket No.: DEBE:067US	:	
For: ENDOTOXIN DETECTION METHOD	:	37 CFR § 1.181
	:	

This is in response to applicants' "Petition Under 37 C.F.R. 1.181(A) to Withdraw Holding of Abandonment Based on Failure to Respond to Notification of Defective Response" filed on 13 November 2009. No petition fee is required.

### **BACKGROUND**

On 20 December 2004, applicants submitted international application PCT/DE2004/002778, which claimed priority to a prior application filed 20 December 2003.

On 15 June 2006, applicants filed a submission for entry into the national stage in the United States, which was accompanied by, inter alia, a preliminary amendment to the specification and the claims. The papers were assigned U.S. application number 10/583,415.

On 02 September 2008, The United States national stage office (DO/EO/US) mailed a "NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (Form DO/EO/905) informing applicants of the need to provide a signed oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the international application number and international filing date. The notification also requires a sequence listing in computer readable form.

On 31 October 2008, applicants filed a response to the Notification. The response included a transmittal letter, substitute sequence listing in .txt format, and an executed declaration.

On 02 June 2009, the DO/EO/US mailed a Notification of Defective Response (Form PCT/DO/EO/916) indicating the sequence listing was defective.

On 24 June 2009, applicants filed a response to the Notification. The response included another copy of the sequence listing in .txt format.

On 14 July 2009, the DO/EO/US mailed a second Notification of Defective Response (Form PCT/DO/EO/916) instead of Notification of Abandonment indicating the sequence listing was again defective.

On 24 September 2009, the DO/EO/US mailed a Notification of Abandonment (Form PCT/DO/EO/909).

On 13 November 2009, applicants filed the present petition under 37 CFR 1.181 and a new sequence listing file.

### DISCUSSION

The Notification of Defective Response mailed 02 June 2009 set a one month, non-extendable time limit for reply. Applicant's correspondence filed 24 June 2009 did not include a complete and proper reply to the Notification of Defective Response mailed 02 June 2009. Specifically, a proper sequence listing in computer readable form was not provided.<sup>1</sup> Accordingly, the present application became abandoned on 03 July 2009 for failure to timely file a proper reply to the Notification of Defective Response mailed 02 June 2009. The Notification of Defective Response mailed 14 July 2009 was sent in error since the application was already abandoned.

### CONCLUSION

Applicants' petition under 37 CFR 1.181 is DISMISSED AS MOOT.

The Notification of the Defective Response mailed 14 July 2009 is hereby VACATED.

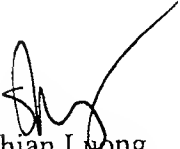
The Notification of Abandonment mailed 24 September 2009 is hereby VACATED.<sup>2</sup>

---

<sup>1</sup> See the attached sequence listing error report.

<sup>2</sup> It is noted that the present application remains abandoned for the reasons discussed above.

Any further correspondence with respect to this matter should be directed to Mail Stop PCT, Commissioner for Patents, Office of PCT Legal Administration, P.O. Box 1450, Alexandria, Virginia 22313-1450, with the contents of the letter marked to the attention of the Office of PCT Legal Administration.



Shian Luong  
PCT Special Programs Examiner  
Office of PCT Legal Administration  
Telephone: (571) 272-4557



Bryan Lin  
PCT Legal Examiner  
Office of PCT Legal Administration

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=11; day=25; hr=16; min=13; sec=19; ms=585;  
]

=====

Application No: 10583415

Version No: 3.0

Input Set:

Output Set:

Started: 2009-11-13 09:17:41.643

Finished: 2009-11-13 09:17:44.386

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 743 ms

Total Warnings: 15

Total Errors: 0

No. of SeqIDs Defined: 15

Actual SeqID Count: 15

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)

# SEQUENCE LISTING

<110> MEYER, ROMAN  
 SCHUTZ, MICHAEL  
 GRALLERT, HOLGER  
 GRASSL, RENATE  
 MILLER, STEFAN

<120> ENDOTOXIN DETECTION METHOD

<130> DEBE:067US

<140> 10583415

<141> 2009-11-13

<150> PCT/DE2004/002778

<151> 2004-12-20

<150> DE 103 60 844.3

<151> 2003-12-20

<160> 15

<170> PatentIn version 3.3

<210> 1

<211> 78

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 1

gaagggaacta gtcatatggc tagctggagc caccgcagc tcgaaaaagg cgccagtaat 60

aatacatatc aacacgtt 78

<210> 2

<211> 54

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 2

acgcgcaaag cttgtcgacg gatcctatca ttcttttacc ttaattatgt agtt 54

<210> 3

<211> 78

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 3

gaaggaacta gtcatatggc ttgttgagc caccgcagt tcgaaaaagg cgccagtaat 60

aatacatatc aacacgtt 78

<210> 4

<211> 78

<212> DNA

<213> artificial sequence

<220>

<223> Synthetic primer

<400> 4

gaaggaacta gtcatatggc tagctggagc caccgcagt tcgaaaaagg cgcctgtaat 60

aatacatatc aacacgtt 78

<210> 5

<211> 19

<212> PRT

<213> artificial sequence

<220>

<223> Synthetic peptide

<400> 5

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn

1 5 10 15

Thr Tyr Gln

<210> 6

<211> 19

<212> PRT

<213> artificial sequence

<220>

<223> Synthetic peptide

<400> 6

Met Ala Cys Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn

1 5 10 15

Thr Tyr Gln



<210> 7  
<211> 19  
<212> PRT  
<213> artificial sequence

<220>  
<223> Synthetic peptide

<400> 7

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Cys Asn Asn  
1 5 10 15

Thr Tyr Gln

<210> 8  
<211> 539  
<212> PRT  
<213> artificial sequence

<220>  
<223> Synthetic peptide

<400> 8

Met Ala Ser Trp Ser His Pro Gln Phe Glu Lys Gly Ala Ser Asn Asn  
1 5 10 15

Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val Lys Phe Asp Pro  
20 25 30

Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val Gln Ala Ala Ile  
35 40 45

Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro Asp Ala Ser Ser  
50 55 60

Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln Glu Val Ile Asp  
65 70 75 80

Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr Leu Ala Thr Arg  
85 90 95

Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly Leu Thr Arg Tyr  
100 105 110

Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn Glu Ser Ser Ile		
115	120	125
Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val Phe Glu Thr Arg		
130	135	140
Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile Ser Ser Leu Pro		
145	150	155 160
Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met Thr Pro Leu Lys		
165	170	175
Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile Ala Pro Ser Lys		
180	185	190
Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln Leu Ala Thr Val		
195	200	205
Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr Ala Ile Ser Pro		
210	215	220
Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr Lys Gly Val Ile		
225	230	235 240
Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn Ala Ser Val Ala		
245	250	255
Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr Thr Ser Met Arg		
260	265	270
Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln Ser Gly Gly Asp		
275	280	285
Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile His Gln Arg Gly		
290	295	300
Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn Thr Leu Thr Ile		
305	310	315 320
Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn Met Thr Gly Gly		
325	330	335

Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu Ile Asp Arg Thr  
 340 345 350

Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp Ser Leu Pro Ser  
 355 360 365

Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser Ala Ser Asp Cys  
 370 375 380

Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly Gly Ser Ser Ser  
 385 390 395 400

Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val Arg Gly Ser Gly  
 405 410 415

Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly Asn Asp Gln Phe  
 420 425 430

Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly Tyr Val Gly Glu  
 435 440 445

Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala Gly Gly Phe Gly  
 450 455 460

Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg Arg Ser Asn Phe  
 465 470 475 480

Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg Ser Tyr Phe Thr  
 485 490 495

Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg Asn Ser Arg Tyr  
 500 505 510

Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr Arg Pro Trp Asn  
 515 520 525

Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
 530 535

<210> 9

<211> 527

<212> PRT

<213> artificial sequence

<220>

<223> Synthetic peptide

<400> 9

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
20 25 30

Gln Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
35 40 45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Leu Ala Thr Glu Gln  
50 55 60

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Ala Val Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asp Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Val  
115 120 125

Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Val Lys Leu Ile Ala Gln Ile  
165 170 175

Ala Pro Ser Lys Asn Ala Ala Thr Glu Ser Glu Gln Gly Val Ile Gln  
180 185 190

Leu Ala Thr Val Ala Gln Ala Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Thr Ala Thr Glu Glu Tyr  
210 215 220

Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
225 230 235 240

Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
245 250 255

Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln  
260 265 270

Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

His Gln Arg Gly Gly Gln Thr Ile Asn Gly Thr Leu Arg Ile Asn Asn  
290 295 300

Thr Leu Thr Ile Ala Ser Gly Gly Ala Asn Ile Thr Gly Thr Val Asn  
305 310 315 320

Met Thr Gly Gly Tyr Ile Gln Gly Lys Arg Val Val Thr Gln Asn Glu  
325 330 335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
355 360 365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
370 375 380

Gly Thr Ser Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
420 425 430

Tyr Val Gly Glu Val Gln Lys Gln Gln Met Ser Tyr His Lys His Ala

435

440

445

Gly Gly Phe Gly Glu Tyr Asp Asp Ser Gly Ala Phe Gly Asn Thr Arg  
 450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
 465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Ala Ser Gln Arg  
 485 490 495

Asn Ser Arg Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
 500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
 515 520 525

&lt;210&gt; 10

&lt;211&gt; 527

&lt;212&gt; PRT

&lt;213&gt; artificial sequence

&lt;220&gt;

&lt;223&gt; Synthetic peptide

&lt;400&gt; 10

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Arg Tyr Val  
 1 5 10 15

Lys Phe Asp Pro Thr Asp Thr Asn Phe Pro Pro Glu Ile Thr Asp Val  
 20 25 30

His Ala Ala Ile Ala Ala Ile Ser Pro Ala Gly Val Asn Gly Val Pro  
 35 40 45

Asp Ala Ser Ser Thr Thr Lys Gly Ile Leu Phe Ile Pro Thr Glu Gln  
 50 55 60

Glu Val Ile Asp Gly Thr Asn Asn Thr Lys Ala Val Thr Pro Ala Thr  
 65 70 75 80

Leu Ala Thr Arg Leu Ser Tyr Pro Asn Ala Thr Glu Thr Val Tyr Gly  
 85 90 95

Leu Thr Arg Tyr Ser Thr Asn Asp Glu Ala Ile Ala Gly Val Asn Asn  
100 105 110

Glu Ser Ser Ile Thr Pro Ala Lys Phe Thr Val Ala Leu Asn Asn Ala  
115 120 125

Phe Glu Thr Arg Val Ser Thr Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Leu Pro Gln Ala Leu Ala Gly Ala Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Gln Leu Ala Ile Lys Leu Ile Ala Gln Ile  
165 170 175

Ala Pro Ser Glu Thr Thr Ala Thr Glu Ser Asp Gln Gly Val Val Gln  
180 185 190

Leu Ala Thr Val Ala Gln Val Arg Gln Gly Thr Leu Arg Glu Gly Tyr  
195 200 205

Ala Ile Ser Pro Tyr Thr Phe Met Asn Ser Ser Ser Thr Glu Glu Tyr  
210 215 220

Lys Gly Val Ile Lys Leu Gly Thr Gln Ser Glu Val Asn Ser Asn Asn  
225 230 235 240

Ala Ser Val Ala Val Thr Gly Ala Thr Leu Asn Gly Arg Gly Ser Thr  
245 250 255

Thr Ser Met Arg Gly Val Val Lys Leu Thr Thr Thr Ala Gly Ser Gln  
260 265 270

Ser Gly Gly Asp Ala Ser Ser Ala Leu Ala Trp Asn Ala Asp Val Ile  
275 280 285

Gln Gln Arg Gly Gly Gln Ile Ile Tyr Gly Thr Leu Arg Ile Glu Asp  
290 295 300

Thr Phe Thr Ile Ala Asn Gly Gly Ala Asn Ile Thr Gly Thr Val Arg  
305 310 315 320

Met Thr Gly Gly Tyr Ile Gln Gly Asn Arg Ile Val Thr Gln Asn Glu

325

330

335

Ile Asp Arg Thr Ile Pro Val Gly Ala Ile Met Met Trp Ala Ala Asp  
 340 345 350

Ser Leu Pro Ser Asp Ala Trp Arg Phe Cys His Gly Gly Thr Val Ser  
 355 360 365

Ala Ser Asp Cys Pro Leu Tyr Ala Ser Arg Ile Gly Thr Arg Tyr Gly  
 370 375 380

Gly Asn Pro Ser Asn Pro Gly Leu Pro Asp Met Arg Gly Leu Phe Val  
 385 390 395 400

Arg Gly Ser Gly Arg Gly Ser His Leu Thr Asn Pro Asn Val Asn Gly  
 405 410 415

Asn Asp Gln Phe Gly Lys Pro Arg Leu Gly Val Gly Cys Thr Gly Gly  
 420 425 430

Tyr Val Gly Glu Val Gln Ile Gln Gln Met Ser Tyr His Lys His Ala  
 435 440 445

Gly Gly Phe Gly Glu His Asp Asp Leu Gly Ala Phe Gly Asn Thr Arg  
 450 455 460

Arg Ser Asn Phe Val Gly Thr Arg Lys Gly Leu Asp Trp Asp Asn Arg  
 465 470 475 480

Ser Tyr Phe Thr Asn Asp Gly Tyr Glu Ile Asp Pro Glu Ser Gln Arg  
 485 490 495

Asn Ser Lys Tyr Thr Leu Asn Arg Pro Glu Leu Ile Gly Asn Glu Thr  
 500 505 510

Arg Pro Trp Asn Ile Ser Leu Asn Tyr Ile Ile Lys Val Lys Glu  
 515 520 525

<210> 11

<211> 518

<212> PRT

<213> artificial sequence

<220>



<223> Synthetic peptide

<400> 11

Met Ser Asn Asn Thr Tyr Gln His Val Ser Asn Glu Ser Lys Tyr Val  
1 5 10 15

Lys Phe Asp Pro Val Gly Ser Asn Phe Pro Asp Thr Val Thr Thr Val  
20 25 30

Gln Ser Ala Leu Ser Lys Ile Ser Asn Ile Gly Val Asn Gly Ile Pro  
35 40 45

Asp Ala Ser Met Glu Val Lys Gly Ile Ala Met Ile Ala Ser Glu Gln  
50 55 60

Glu Val Leu Asp Gly Thr Asn Asn Ser Lys Ile Val Thr Pro Ala Thr  
65 70 75 80

Leu Ala Thr Arg Leu Leu Tyr Pro Asn Ala Thr Glu Thr Lys Tyr Gly  
85 90 95

Leu Thr Arg Tyr Ser Thr Asn Glu Glu Thr Leu Glu Gly Ser Asp Asn  
100 105 110

Asn Ser Ser Ile Thr Pro Gln Lys Leu Lys Tyr His Thr Asp Asp Val  
115 120 125

Phe Gln Asn Arg Tyr Ser Ser Glu Ser Ser Asn Gly Val Ile Lys Ile  
130 135 140

Ser Ser Thr Pro Ala Ala Leu Ala Gly Val Asp Asp Thr Thr Ala Met  
145 150 155 160

Thr Pro Leu Lys Thr Gln Lys Leu Ala Ile Lys Leu Ile Ser Gln Ile  
165 170 175

Ala Pro Ser Glu Asp Thr Ala Ser Glu Ser Val Arg Gly Val Val Gln  
180 185